THE LOST DARK AGE

KINGDOM OF RHEGED

The Discovery of a Royal Stronghold at Trusty's Hill, Galloway

RONAN TOOLIS & CHRISTOPHER BOWLES

VISIT...

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Ronan Toolis and Christopher Bowles

with contributions by

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Chapter 1

Introduction

Trusty's Hill Fort rests on the summit of a craggy knoll within the Boreland Hills, in the Stewartry district of Dumfries and Galloway (NX 5889 5601). The site lies in the parish of Anwoth, approximately 1 km south-west of the centre of Gatehouse of Fleet (Fig. 1.1). It is a key heritage asset of the Fleet Valley National Scenic Area. At a height of 72 m OD this is not the most prominent summit of the Boreland Hills, an area of small hillocks covered in scrub and rough grazing for cattle and sheep (Fig. 1.1). However, it affords wide views over the Fleet valley. Higher peaks of the Boreland hills rise to the south-west partially blocking the view of the Fleet Bay.

The fort is defined by a vitrified rampart around the summit of the hill, enclosing an area of 0.0437 ha, with an outer bank and rock-cut ditch on its northern side and a series of lesser outer ramparts on its southern side. It is particularly conspicuous amongst the hillforts of Galloway for the pair of Pictish symbols, comprising a double disc and Z-rod, and a sea-monster and sword, carved on an exposed face of greywacke bedrock at the entrance to the fort. These symbols, their unique character and their location in south-western Scotland have long puzzled scholars.

The site is first mentioned in the Anwoth parish entry in the Statistical Account of Scotland as 'one of those vitrified forts which have lately excited the curiosity of modern antiquaries' (Gordon 1794, 351). It was observed that the summit of this steep rock was 'nearly surrounded with an irregular ridge of loose stones, intermixed with vast quantities of vitrified matter' and that 'on the south side of this fort there is a broad flat stone, inscribed with several waving and spiral lines, which exhibit however no regular figure' and 'near it likewise were lately found several silver coins; one of King Edward VI; the rest of Queen Elizabeth' *(ibid.)*. The site was again noted just over 50 years later in the New Statistical Account of Scotland, but with no further information (Johnstone 1845, 378).

The first written reference to the place-name of Trusty's Hill was given in the Ordnance Survey Name Book for Kirkcudbrightshire (Ordnance Survey 1848, 26). The surveyor verified the name through

four local residents and recounts an interesting story about the origins of the name. The surveyor states that 'formerly there had been a house at the base of the hill which had been occupied by a man named Carson who had married one of the minister's servants, which servant the minister had always styled her as his Trusty Servant, from whom it is said the hill took its name' (*ibid.*). The Name Book also states that the hill, which was on the farm of Boreland, had originally been called the 'Cairn of Borland', though the surveyor makes no mention of a cairn, simply adding that 'on its summit is the vitrified fort' (*ibid.*). Unfortunately, available mapping evidence from the late sixteenth century to the middle of the nineteenth century shows neither Cairn of Borland or a cottage in the vicinity of Trusty's Hill and so it is difficult to verify this story.

The first survey of the site was undertaken in 1848 by the Ordnance Survey for the First Edition 6-inch map, published in 1854 (Fig.1.2). However, while the basic shape of the fort is recognisably correct, much of the finer detail is missing. The subsequent Second Edition plan of the site produced by the Ordnance Survey in the 1890s is even less detailed, the surveyors appearing to have abandoned the premise of a small hilltop citadel in favour of a larger oval enclosure. This depiction ignores many of the topographical and archaeological features present (Fig. 1.3).

The carved symbols were first drawn by John Stuart (Fig. 1.4), who also recorded that the site went by the name of Trusty's Hill (1856, 31). Stuart doubted whether the horned head at the bottom was nothing but a more recent addition to the other carvings (*ibid.*).

The first detailed plan of the site (Fig. 1.5) was in fact made around the same time as the Ordnance Survey Second Edition map in the 1890s by Frederick Coles, who recorded un-mortared stonework around the summit but noted that according to 'accurate observers' the walls were regular and compact, and exhibited vitrification 40 or 50 years previously (1893, 173–4). The style of Coles's depiction contrasts with that used by the Ordnance Survey but it reflects the archaeological features and the craggy, broken topography of the site somewhat better.

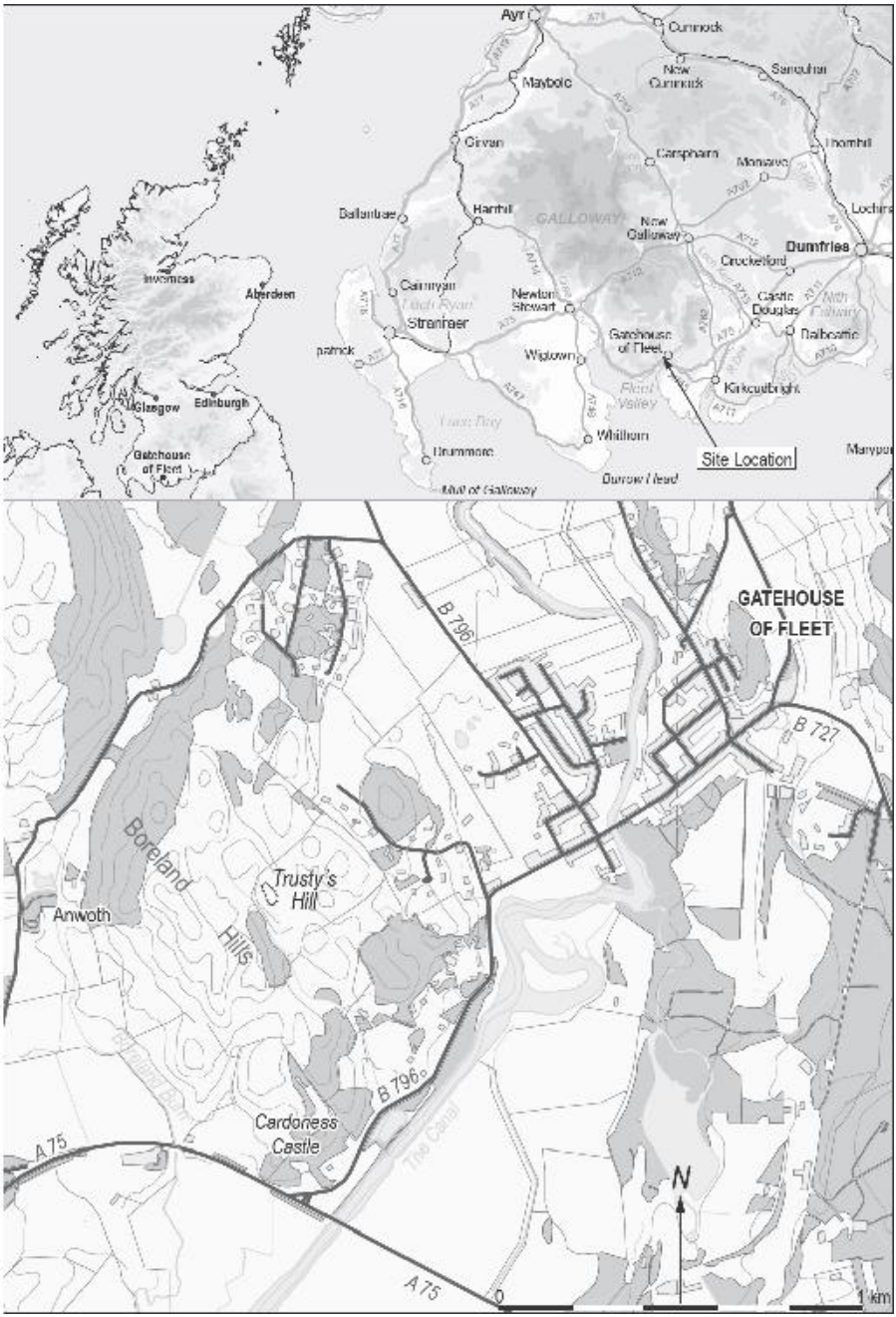


Fig. 1.1. Site Location

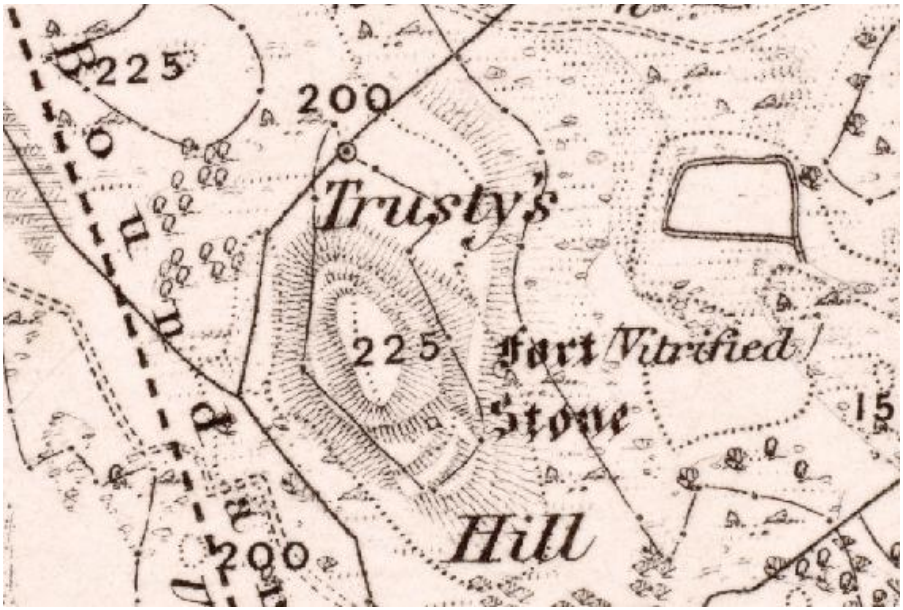


Fig. 1.2. Ordnance Survey First Edition 6-inch (1:10,560 scale) 1854 map. © Courtesy of RCAHMS (Ordnance Survey Historical Maps). Licensor www.rcahms.gov.uk

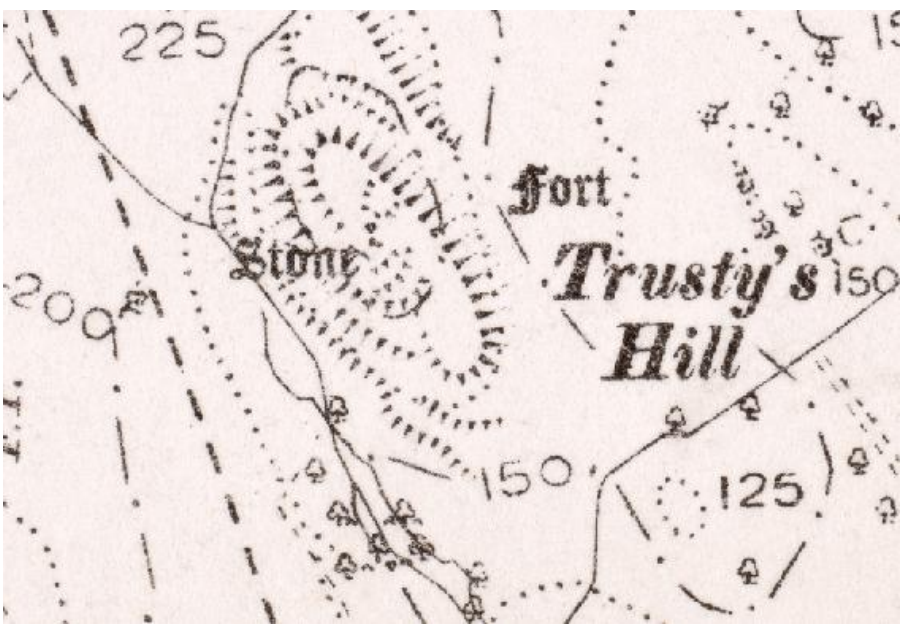


Fig. 1.3. Ordnance Survey (1:2500 scale) 1896 map. © Courtesy of RCAHMS (Ordnance Survey Historical Maps). Licensor www.rcahms.gov.uk

Of most interest to Coles were the 'Dolphin' and 'Sceptre and Spectacle Ornament' carvings. He concurred with Stuart in dismissing the lowest figure as of recent origin (Coles 1893, 174). Coles also noted that he could not find cup and ring marks said to be near this

sculpturing. Interestingly, he suggested that the antiquity of the name Trusty's Hill could be dismissed as the invention of a certain Allan Kowen, who 50 years before, according to local testimony, had rented a small croft near the foot of the hill and founded the legend about 'Trusty' *(ibid.)*. While this statement suggests a slightly different albeit modern origin to the name from that recounted in the 1848 Ordnance Survey Name Book, by the 1890s the fame of the inscribed stone and the fort may have led to the invention of a local mythology which was not apparent earlier in the century. Certainly much of the graffiti exhibited on the stone (see Fig. 1.12) appears to be nineteenth century in date and points to the site having been something of a local attraction.

Fig. 1.4. Stuart's 1856 depiction of the Pictish Symbols at Trusty's Hill. © Courtesy of RCAHMS. Licensor www.rcahms.gov.uk

The Pictish symbols at Trusty's Hill were included a short time later in John Romilly Allen and Joseph Anderson's survey of Early Christian Monuments in Scotland (1903, 477–78; Fig 1.6), who classified the z-rod and double disc symbol and dolphin symbol as Class I (1903, 92).

They were the first to note the protective cage of iron bars over the carvings (1903, 478). The first RCAHMS survey largely repeated Allen and Anderson's description and typology a few years later (1914, 15).

Although the Ordnance Survey and Frederick Coles had identified 'Trusty's Hill' to be a nineteenth century invention, local writers continued to attribute a legendary association of the site with King Drust well into the twentieth century (Maxwell 1930, 262). The story of Trusty's Hill had clearly kept pace with a growing awareness and romanticism of the Picts, their historical figures and their symbols across Scotland in the late nineteenth and early twentieth centuries. This also fed into a wider narrative about of the 'Picts of Galloway' with the symbols being perceived as a physical link to this mythologised past.

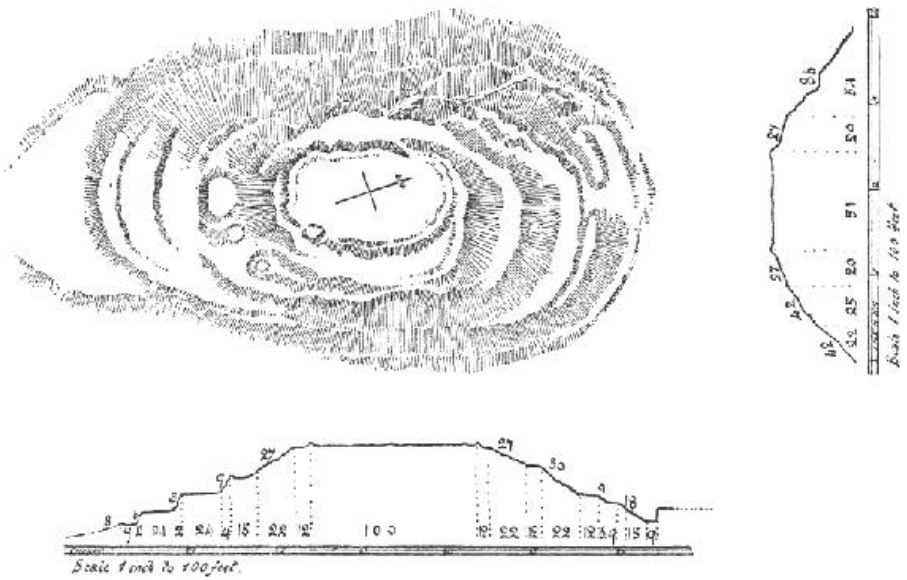


Fig. 1.5. Coles' 1893 Plan of Trusty's Hill. We are grateful to the Society of Antiquaries of Scotland for permission to reproduce this illustration

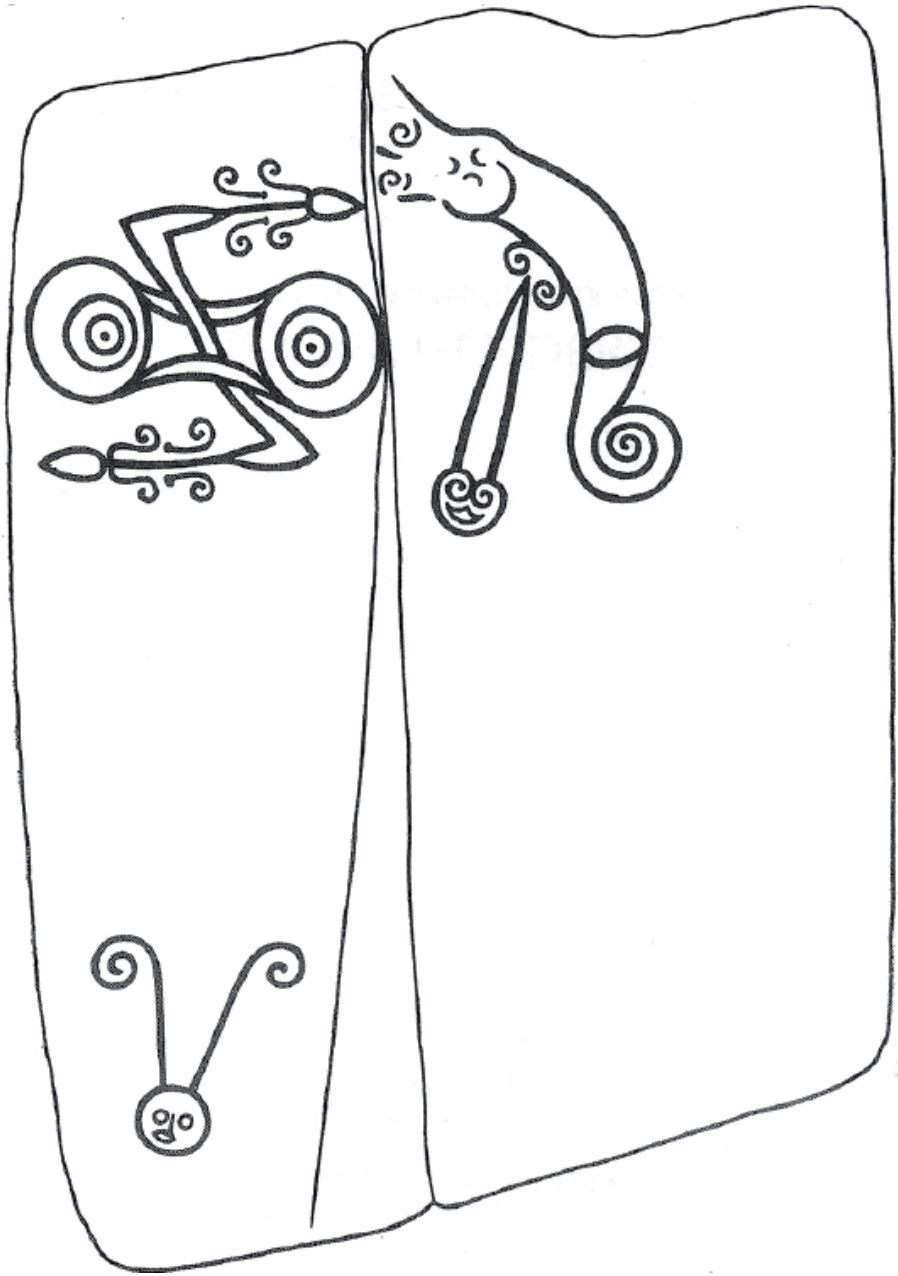


Fig. 1.6. Allen and Anderson's 1903 depiction of the Pictish Symbols at Trusty's Hill. We are grateful to the Society of Antiquaries of Scotland for permission to reproduce this illustration

The first archaeologist to examine the Trusty's Hill symbols was C. A. Raleigh Radford. Radford considered the horned head to have been retouched in modern times but thought the form to be of genuine antiquity (1953, 237). He compared the similar relationship of the

Pictish symbols at Trusty's Hill to two other non-Pictish forts, Dunadd in Argyll and Edinburgh Castle Rock, which either contain or lie in proximity to Pictish symbols. Based on the reference in the twelfth century *Life of St Kentigern* by Jocelyn of Furness to a stone erected to mark the spot where King Leudon fell, Raleigh Radford postulated that these carvings commemorated Pictish leaders who had fallen in attacks on these fortresses (1953, 238). Radford classed the symbols as Class II, and considered them late seventh or early eighth century AD by analogy with likely Pictish raids in southern Scotland in the decades following the battle of Nechtansmere (1953, 239).

The first excavation of Trusty's Hill was directed by Charles Thomas in 1960 (1961, 58–70). Charles Thomas's interest in the site was encouraged by R. C. Reid (Thomas *pers. comm.*), then one of the editors of the *Transactions of the Dumfriesshire and Galloway Natural History and Antiquarian Society,* who had long advocated its excavation (1952, 163–64). Thomas's team excavated seven trenches, including two within the summit of the hill, and surveyed a new plan of the site showing the excavation trenches (Fig. 1.7). The easternmost of these trenches, Trench 4, yielded a substantial amount of animal bones, from cattle, sheep and pigs, and charcoal from a dark occupation layer said to be 3–6 in (76–152 mm) deep (Thomas 1961, 63). The lower half of a granite rotary quern was found buried face down bedded in this occupation layer, which overlay a thin dark skin of old turf that itself covered bedrock an average of 18 in (457 mm) below the ground surface *(ibid.)*. Sizeable blocks of flattish stone were also recorded across the western side of Trench 4 towards the interior of the summit enclosure. While none of these appeared to be *in situ,* the occupation layer seemingly respected their eastern edge. This edge was also sealed by the rubble of the collapsed rampart along the eastern side of the site which had fallen both inwards into the enclosure and outwards down the slope of the hill (Thomas 1961, 63–4; Fig. 1.8). Vitrification of the internal rampart core was revealed, particularly along its interior side, and a considerable amount of modern disturbance to the rampart was also noted here. Thomas noted that in this area the rampart had been truncated and overlain by a small collapsed structure constructed from stone robbed from the rampart (*ibid.*).

Thomas's excavation of Trench 5, on the opposite western side of the summit, revealed the apparent basal course of a stone wall about 4 ft (1.22 m) in width that had collapsed outwards and down the western flank of the hill (1961, 63). A small cutting, Trench 7, was opened across a small platform on the north-western flank of the hill

but revealed only a narrow collapsed wall and a thin layer of turf overlying bedrock (Thomas 1961, 64). Very little else of the interior was exposed as unrecorded sondages apparently revealed only bedrock (*ibid.*).

In addition to the vitrified ramparts, Thomas revealed another key feature, a waterlogged rock-cut depression lined with dry stone masonry symbols (Thomas 1961, 65–6; Fig. 1.9). This was located directly to the east of the entranceway, out with the summit rampart and opposite the Pictish inscribed outcrop. Thomas removed rubble and vitrified stone collapse from the summit rampart above to a depth of 3 ft (0.91 m) before water seeped in rapidly, confirming that this feature was a focus of surface drainage *(ibid)*. Large granite boulders were exposed on a bedrock ledge immediately adjacent to the depression on the south side, and a further 3 ft (0.91 m) was excavated beyond this nearly to bedrock (Thomas 1961, 66). On the basis of this evidence, Thomas speculated that the feature was the remains of a small oval 'guard hut', measuring 9 × 11 ft (c. 2.74 × 3.35 m), with its southern and eastern walls founded on a course of granite boulders wedged into natural shelves of bedrock (*ibid.*). Thomas suggested that the foundations of the building lay approximately one foot above the original floor level in effect making this a sunken floored building (*ibid.*). The western side of this oval space was deemed to be the doorway but this was not clearly defined. A bank of stones emanating from the summit entrance as an out-turned stub bank blocked the possible doorway space entirely. The northern side of the supposed hut, cut into the hill slope, was defined by courses of flat stones arranged to form a semi-circular inner face almost four feet high. Thomas noted that due to rapid water ingress the floor of this oval space was reduced to a 'soupy mud', and while charcoal was noted, no artefacts were recovered.

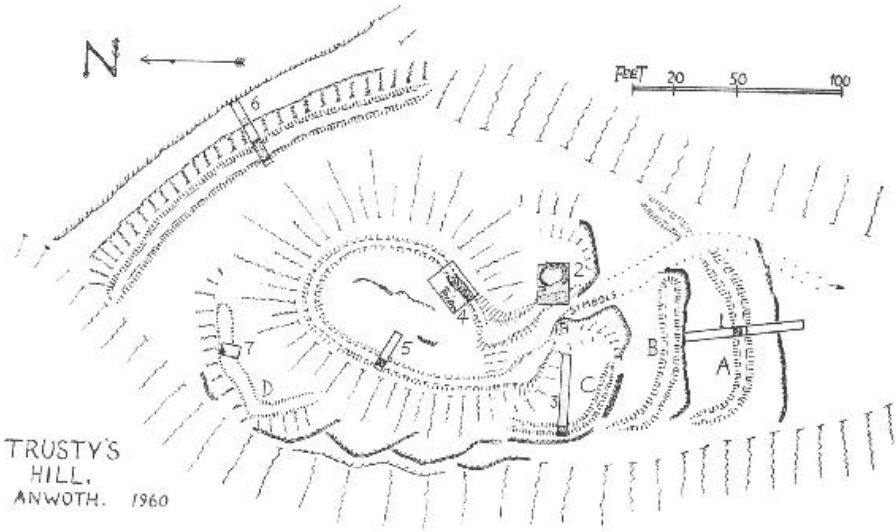


Fig. 1.7. Thomas's 1960 plan of Trusty's Hill. © DGNHAS

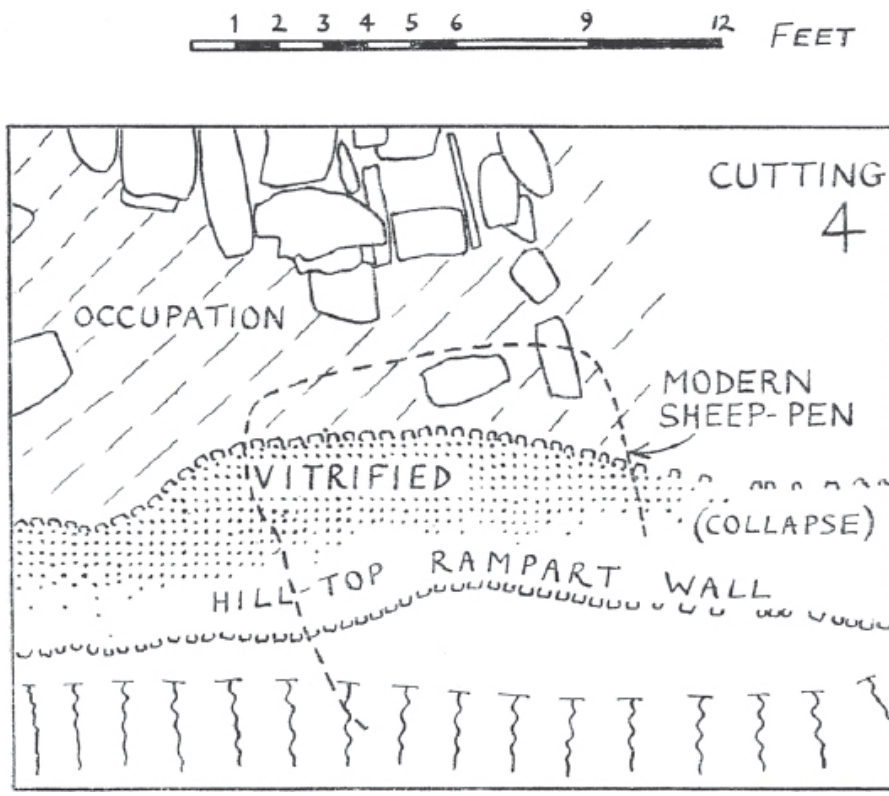


Fig. 1.8. Thomas's plan of Trench 4. © DGNHAS

Another cutting, Trench 3, was opened across a platform to the west of the entranceway on the other side of the Pictish inscribed outcrop from the 'guard hut', but Thomas was unable to penetrate the mass of

rubble and vitrified stone that had collapsed on to it from the rampart above (Thomas 1961, 65). However, this trench did confirm that the bank that defined the western and southern edge of the platform comprised a mass of rubble and earth piled behind an outer revetment of dry stone with no inner revetting face.

Trench 1 examined the lowest lying of Trusty's Hill's enclosed areas on the southern side of the summit. This trench revealed that the lowest and southernmost step was natural and that to the north of this, the outermost of the ramparts comprised a shallow bank some 2 ft (0.61 m) high and 4 ft (1.22 m) across with an outer stone revetment and rubble core and resting on a natural rock shelf (Thomas 1961, 61). The shelf to the north was enclosed by this bank and had apparently been stripped of topsoil when the ramparts were constructed (Thomas 1961, 62; Fig. 1.10). It yielded no artefacts or structural remains but only charcoal fragments. The rock shelf was overlain by the collapsed rubble from the rampart of the adjacent enclosure to the north.

On the opposite north-eastern side of the hill, Trench 6 exposed a section across a rock-cut ditch, 8 ft (2.44 m) deep and 10 ft (3.05 m) across. Above the inner face of the ditch was a substantial rubble and earth bank, nearly 10 ft (3.05 m) wide, with inner and outer stone revetments. The primary fill of the rock-cut ditch was a large wedge of silt on the inner side, sealed by a secondary fill of stony rubble collapse from the inner rampart (Thomas 1961, 62–3; Fig. 1.10). No artefacts were recovered from either of these ditch fills.

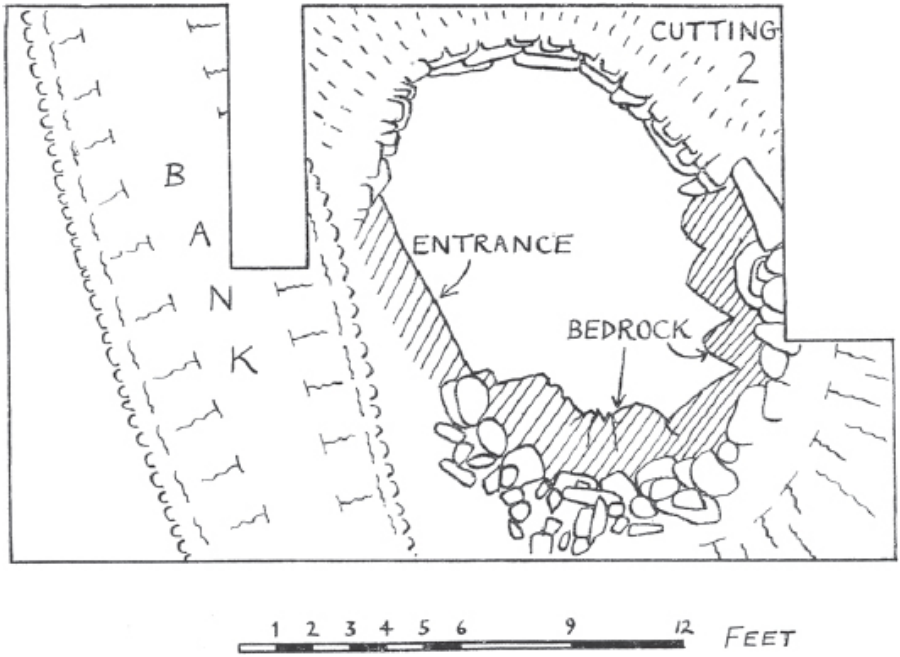


Fig. 1.9. Thomas's plan of Trench 2. © DGNHAS

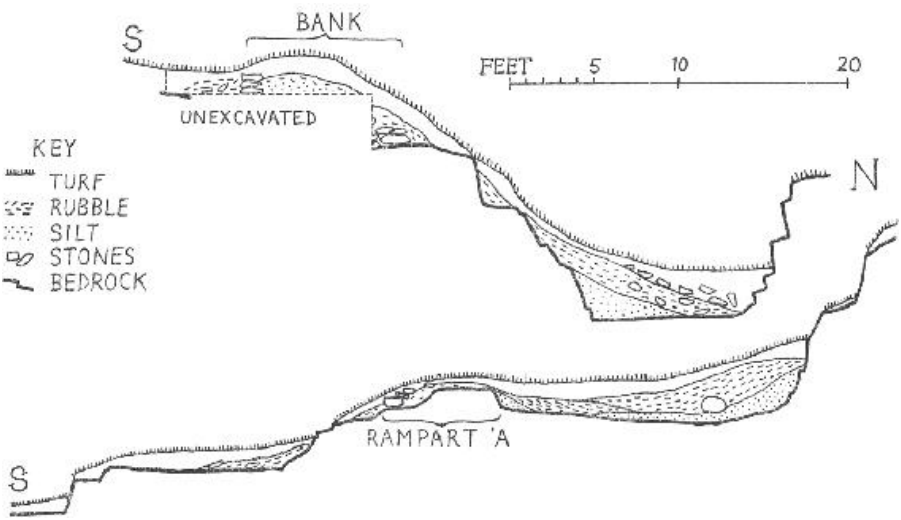


Fig. 1.10. Thomas' Sections of the north-eastern rock-cut ditch and southernmost outer rampart. © DGNHAS

At the end of a rain-soaked fortnight, Thomas's seven trenches were backfilled, though the 'guard hut' was partially reconstructed along its northern side to a height of 6 ft (1.83 m); half-pennies being bonded at the junction of the old and new walling (Thomas 1961, 70).

Thomas's excavations did not recover any precise dating evidence; the only artefacts recorded being the lower half of a rotary quern, flint

flakes and several beach pebbles from the interior. These finds would be consistent with occupation at any time between the second century BC and the early medieval period. None of the animal bones or charcoal were collected for further analysis.

Despite the paucity of material culture, Thomas interpreted two widely separate phases of occupation on the site. The first phase was attributed to the first century AD. Thomas concluded that in this phase the rampart enclosing the summit was constructed along with the 'guard-hut' and the rock-cut ditch to the north (Thomas 1961, 66–7). In the second phase the occupants built the outer ramparts on the southern flank of the summit, the extension of the entranceway and possibly the small bank on the north-western slope (Fig. 1.7). Thomas ascribed this phase to the post-Roman period and drew analogies with nuclear or nucleated forts such as Dunadd and Dalmahoy (1961, 67–8). This second and final phase apparently ended with the burning of lean-to buildings in the interior of the summit enclosure and the consequent vitrification of an already partially ruined timber-laced stone rampart around the summit (Thomas 1961, 67–9). Thomas concurred with Raleigh Radford in attributing the carvings at the entrance as commemorating a fallen Pictish leader responsible for the fort's fiery demise *(ibid.,* 60). However, contrary to Raleigh Radford he considered the Pictish symbols to be Class I, late sixth or early seventh century AD, based on the apparent improbability of Pictish raiders coming so far south post-Nechtansmere (ie after AD 685). Thomas also postulated that the excessive floriation of the z-rod and the insertion of its central portion between the bars of the double disc's 'waist' was closer to AD 600 than 500 (1961, 68–9).

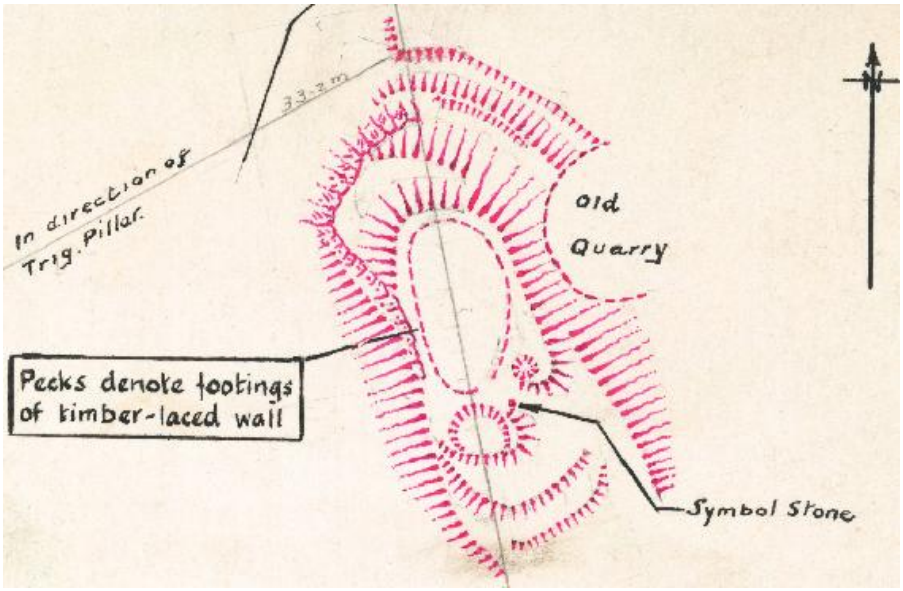


Fig. 1.11. Ordnance Survey (1:2500 scale) 1970 map. © Courtesy of RCAHMS (Ordnance Survey). Licensor www.rcahms.gov.uk

Perhaps, given the lack of conclusive dating evidence from Thomas's excavation, subsequent discussions of the site focused not on the archaeological context of the symbols but instead on art historical stylistic comparisons between Trusty's Hill's inscriptions and other Pictish symbols. The art historical discussion led to a new wave of dismissal of the significance of the Trusty's Hill inscription and a marginalisation of the site itself. For instance, Isabel Henderson, in dismissing early Pictish occupation of Galloway, considered the Pictish symbols at Trusty's Hill to be a late Class II 'perversion' (1960, 50) based on stylistic comparisons of Pictish symbols. In part using the symbols at Trusty's Hill, Henderson elaborated upon the principle of the 'declining symbol', which recognised a 'correct' form for each symbol and that this was in the main represented by the earliest examples with later versions declining in form (1967, 112–14). As the symbols at Trusty's Hill were considered, according to this principle, to be late in the sequence, Henderson surmised that they must have been carved at an otherwise unspecified period 'when we know there was no Pictish settlement in Galloway' (1967, 114). Using this rationale, Henderson concluded that the carvings could be 'safely dismissed as an outlier'.

Mirroring Henderson, Wainwright, in his arguments against Pictland stretching south of the Forth-Clyde, also considered the Pictish symbols at Trusty's Hill, like those at Edinburgh, to be strays out with the main distribution of Pictish Stones (1980, 36–44). Anthony

Jackson went even further, dismissing the carvings at Trusty's Hill, as well as at many other sites, as dubious owing to their uncommon symbols (1984, 37). Richard Oram, in his argument against Pictish settlement in Galloway, accepted that the Pictish authenticity of the carvings was open to question and refused to discount the possibility that they are relatively modern forgeries (1993, 15). He noted that Thomas's excavations at Trusty's Hill, and indeed any other excavations in Galloway, had failed to produce evidence for a Pictish population (1993, 16–17).

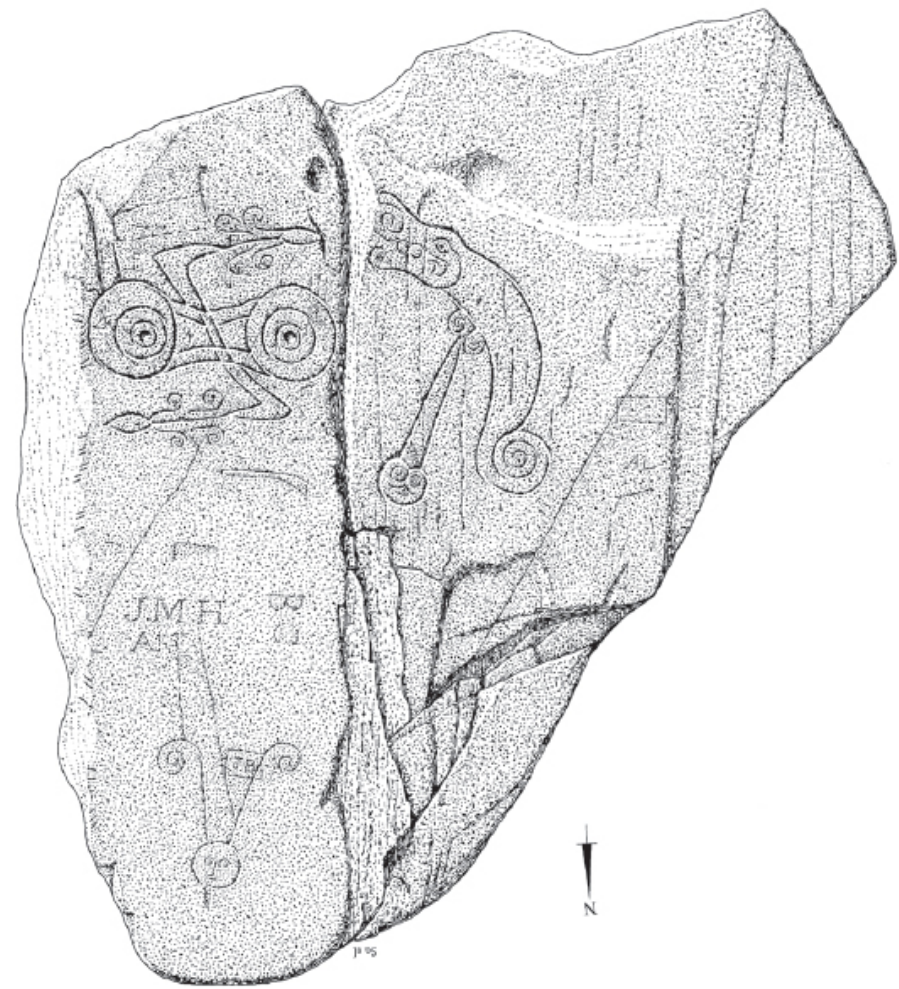


Fig. 1.12. RCAHMS Survey of inscribed symbols at Trusty's Hill. © Crown Copyright: RCAHMS. Licensor www.rcahms.gov.uk

Craig Cessford, on the other hand, while pointing out that the raiding party theory behind the carving of Pictish symbols at Trusty's

Hill had attained the status of a 'factoid', and thus considered a variety of other explanations, nevertheless concluded that this theory was still the most likely (1994, 81–6). However, given the evidence for cross-cultural exchange, such as the use of Pictish symbols at the royal Scottish stronghold of Dunadd and the adoption of Pictish symbols in the British silver chain from Whitecleuch in South Lanarkshire, he accepted that it was eminently possible that such cultural interaction may have happened at Trusty's Hill too (1994, 82–3).

More recently, discussion began to return to the possible validity of the symbols and thus their historical if not archaeological context. Lloyd Laing observed that, since the symbols appeared to have been cut at the same time, if the Pictish symbols at Trusty's Hill were a forgery as postulated by Oram and Jackson they must have pre-dated Stuart's drawing in the mid-nineteenth century by some duration for him to have considered them genuine (2000, 10). Laing commented that this would project any forgery to a period when interest in Pictish symbols was virtually non-existent, but he accepted that though the carvings should be seen as ancient, whether they were Pictish or not, was another matter (ibid.). He accepted the argument that Pictish symbols must be found in pairs to be true, and that the double disc and z-rod at Trusty's Hill comprised one symbol, not a pair. He pointed out that the Trusty's Hill 'beast' is similar to a 'hippocamp' on a Class II stone at Brodie in Elgin and that hippocamps do not belong to the Pictish repertoire. Ultimately, Laing rejected the sword and symbols at Trusty's Hill as being genuinely Pictish. Laing considered the style of the z-rod, as it was woven through the double disc instead of crossing it as is the case on Class I stones, to be Class II. He argued that, apart from the horned head and sword which might be Iron Age, the other symbols at Trusty's Hill were *inspired* by relief carvings on a Class II monument and that they were executed by someone who had seen Class II Pictish Stones but had not remembered them correctly (2000, 11). As he considered it unlikely that Class II stones pre-date the mid-eighth century, and that the majority are ninth century, Laing rejected the explanation of a Pictish raiding party for the carvings at Trusty's Hill, preferring instead that the symbols commemorated a marriage between a Pict and a Galloway, perhaps Anglian, noble.

Despite this renewed interest in the carvings at Trusty's Hill, little new fieldwork was carried out after Thomas's excavations in 1960. The most recent non-digital Ordnance Survey plan of the fort was produced in 1970 which accurately reflected the archaeology, albeit at a mapping scale. Perhaps most importantly, the Ordnance Survey

were the first to recognise that the east end of the rock-cut ditch at the north side of the site had been truncated by quarrying (Fig 1.11). More recently, a new digital survey of the Pictish Inscription at Trusty's Hill was produced for the RCAHMS in the early 2000s (Fraser 2008, 64–5). This apparently revealed previously unnoticed ogham along the southern, left hand edge of the exposed outcrop face (Fig. 1.12). The relatively low resolution of the survey results, perhaps hampered by the iron cage that protects the stone, meant that the newly discovered Ogham inscription could not be translated (John Boreland *pers. comm.;* Katherine Forsyth *pers. comm.)*. Nonetheless, it appeared to mirror the combination of Gaelic ogham with Pictish symbols at sites in north-east Scotland, such as Kirriemuir and St Vigeans (Fraser 2008, 7, 64–5) and the Brodie Stone in Elgin, which, as noted by Laing above, already contained similarities to one of the symbols at Trusty's Hill (2000, 10). The combination of Pictish and ogham inscriptions at Dunadd provided another interesting parallel (Lane & Campbell 2000, 19).

However, none of the interpretations drawn above, or the limited archaeological fieldwork, appeared entirely satisfactory either in terms of establishing a credible date, function and authenticity of the Pictish symbols at Trusty's Hill in particular, or the date, nature, status and cessation of the settlement as a whole. Upon review, it was increasingly apparent to the authors that previous discussions of Trusty's Hill had largely been based on supposition and that there was very little actual evidence for the occupation of Trusty's Hill or the archaeological context this might provide for the carved symbols.

While a vitrified rampart around the summit was confirmed as far back as the nineteenth century, and Thomas revealed limited occupation evidence in 1960, nothing apart from the Pictish symbols could date the occupation of the fort; demonstrate the status of its inhabitants; or explicitly link the occupation of the fort with the Pictish inscription. This was in no small part due to the atrocious weather conditions that Thomas's team had to endure over the entire duration of the 1960 excavation, and the very limited resources he had (Thomas *pers. comm.)*. Yet Thomas's excavations yielded tantalising fragments of significant archaeology potentially related to cultural practices. For instance, the waterlogged 'guard-hut' exposed near the entranceway, appeared, from Thomas's own description, to have been a rockcut basin that acted as a focus for surface drainage (Thomas 1961, 66). If it was created for this purpose, it is reminiscent of the rock-cut well at Burghead in Aberdeenshire, which was also on the periphery of a fort and associated with Pictish inscribed symbols

(Feachem 1977, 139). Thomas's confirmation of the vitrification at the core of the rampart surrounding the summit is also significant, demonstrating a scale of destruction that required a substantial magnitude of resources and could provide dateable evidence for the site's demise. Such hypotheses, the authors felt, were testable through new excavation.

In the absence of firm archaeological evidence the Pictish symbols at Trusty's Hill have largely been discussed only in terms of historical and stylistic analogy. Because these discussions have also sought to dismiss any Pictish association with Galloway, the archaeological authenticity and context of the symbols has often been questioned while the grasp of supportive archaeological evidence has at times been weak *(e.g.* Oram 1993, 16–17). While it is clearly evident that the Pictish carvings at Trusty's Hill, along with the other 'strays' south and west of the Forth (Wainwright 1980, 30) are well outside Pictland, this does not negate any archaeological significance to these symbols. Indeed, as a unique occurrence in Galloway, the inscription at Trusty's Hill is all the more puzzling and relevant to understanding cross-cultural interaction in early medieval Scotland. Recent scholarship suggests that Pictish, Ogham and Latin inscribed stones all belong to the same insular epigraphic pattern and that these are monuments, not documents, which must be understood in their own right (Forsyth 2010). In the view of the authors, the perception that these symbolic monuments represented statements of cultural aspiration highlighted the need to better understand the archaeological context of the Pictish symbols at Trusty's Hill. This also fitted with a key research theme, that of establishing the complex cultural interactions behind the creation of the Scottish Kingdom, emerging from Scottish Archaeological Research Framework panel discussions at the time (Sanders 2011, 9). Within this broad theme, personal and group identity and how this manifested itself in material culture, is recognised as an important research topic.

Given the role the Dumfriesshire and Galloway Natural History and Antiquarian Society played in encouraging Charles Thomas to undertake his excavations in 1960, the Society decided to mark its 150th anniversary in 2012 by launching the Galloway Picts Project, a new programme of survey and excavation at Trusty's Hill. Despite its name, which was never intended as anything but to provoke interest in this endeavour, the Galloway Picts project was not concerned with examining the 'Galloway Picts' *(contra* Breeze 2014), a concept that was probably never more than a medieval Anglo-Norman monastic metaphor for Galloway's 'wild' inhabitants during the twelfth century

(Oram 1993, 26). The purpose of this research instead was to investigate and record the environmental and dating evidence not recovered during the previous excavations. From inception, the ultimate hope of the Galloway Picts project was that a firm archaeological *context* for the Pictish inscription at Trusty's Hill could be revealed and that this might enhance understanding of this enigmatic archaeological site and its significance within early medieval Scotland.

Chapter 2

Fieldwork results

The 2012 archaeological fieldwork comprised a topographic GPS survey to establish a modern plan and 3D model of the entirety of Trusty's Hill; the re-excavation of Thomas's previous excavation trenches; and a detailed laser scan survey of the Pictish inscribed stone.

Topographic survey

The topographic survey undertaken in April 2012 by RCAHMS demonstrates that the fort on Trusty's Hill comprises a central summit enclosure with outworks to the north-east and south-east, in total covering an area measuring 2874 m^2 (Fig. 2.1). Both the eastern and western flanks of the hill are devoid of outer ramparts, owing to the natural steep incline of the hill on these sides.

The central oval enclosure measures 31 m north-north-west-south-south-east by 17 m transversely and is defined by a stone rubble rampart largely reduced to a grass-grown scarp. The summit rampart encloses an area of 437 m^2. Patches of vitrified stone are visible along the course of the rampart where the ground surface has been broken and worn away by livestock. The stone rubble of the collapsed rampart extends down the slope on all sides of the summit. The summit area itself is divided in two by a north-north-west–south-south-east aligned ridge of outcrop separating a 25 m long and 7.5 m wide upper area of relatively level ground with minor scarps along the western edge of the summit from a lower area, also largely level, and measuring 23 m long and 6.5 m wide, along the eastern edge of the summit.

The entrance to the summit was clearly through the south-south-east side of the summit enclosure but the course and configuration of the rampart here is uncertain. The upper rampart appears to terminate at the west side of the entrance. From here are traces of a low bank dropping down to the south-east between two large rock outcrops. This bank is paralleled by traces of another on the east side of the entranceway. These two banks continue as horn-works along the

outcrop crests east and west of the entranceway. Between the horn-work and the summit rampart on the east side of the entranceway lies a sub-circular hollow, its upper north-western side defined by a curvilinear drystone revetment. On the opposite western side of the entranceway (Fig. 2.2), lies a smooth greywacke outcrop face on which the Pictish symbols have been inscribed, along with a considerable amount of largely nineteenth century graffiti. The symbols consist of a double-disc and Z-rod to the left of a natural seam in the stone, and a zoomorphic creature with a curving spiral tail, it's belly apparently pierced by a pointed object to the left of the seam (see Fig. 2.21). The carvings are protected by an early twentieth century iron cage bolted into the rock face.

To the south of the summit enclosure, immediately south-west of the western horn-work of the entranceway, behind the Pictish inscribed outcrop, is a level oval shaped terrace measuring 8.5 m west-southwest–east-south-east by 5 m north-north-west–south-south-east. Traces of a second rampart cut across the southern and western edges of this terrace along the crest of a rock outcrop about 1.5 m in height. About 5 m beyond the foot of this is a third rampart, again incorporating a rock outcrop with a drop of around 1.5 m. This bank defines the southern and western edges of a curvilinear level terrace area around the southern flank of the hill. This terrace appears openended on its eastern edge where it meets the course of the entranceway to the south-east. Below this lies another level terrace area also around 5 m broad. It is defined on its south-eastern edge by a fourth rampart, which also opens out to the course of the entranceway that runs along the south-eastern flank of the hill. Beyond this rampart lies a narrow terrace, roughly 2 m broad, that extends all the way across to the south-eastern flank of the hill, above a natural break of slope.

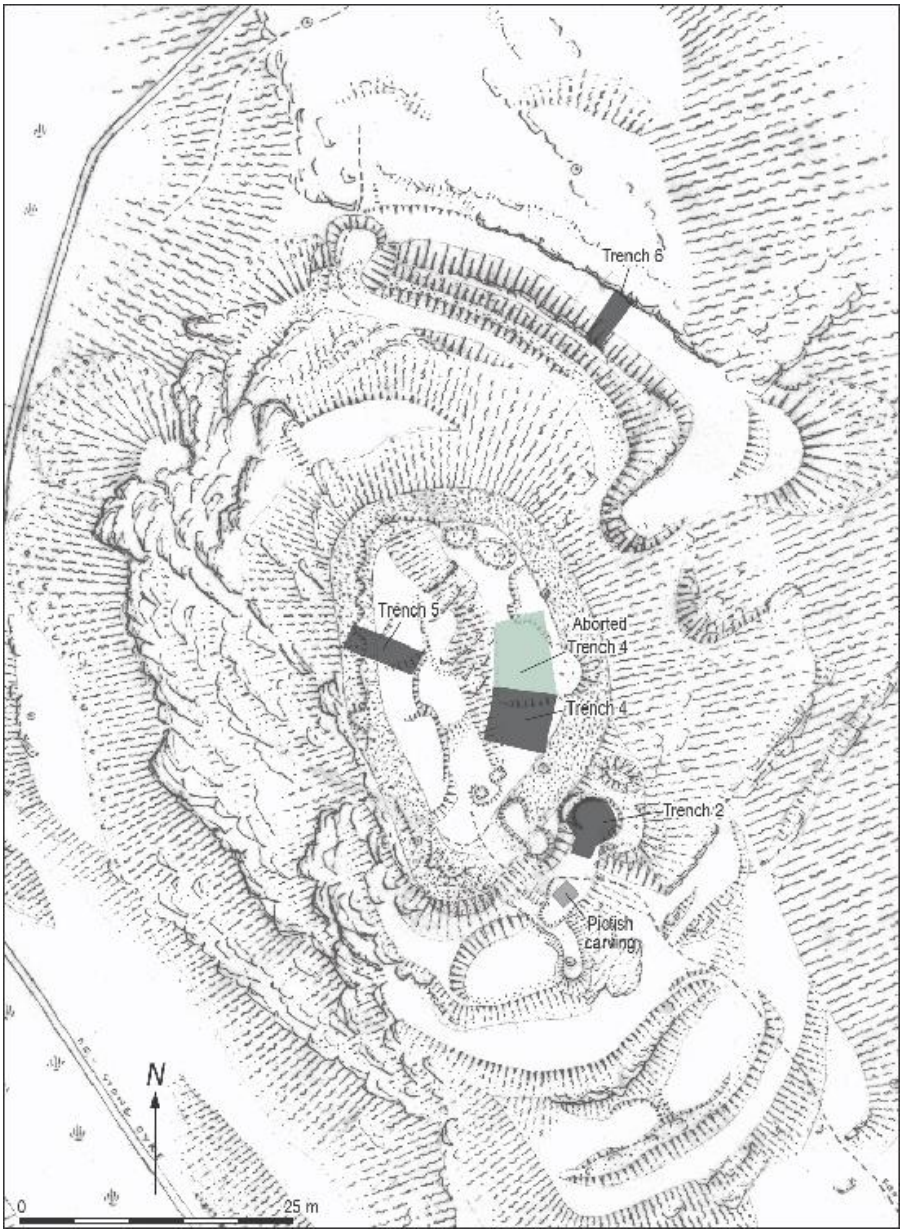


Fig. 2.1. Topographic plan of Trusty's Hill overlaid with 2012 excavation trenches. © RCAHMS/DGNHAS

Fig. 2.2. The circular hollow, prior to excavation, lying on the opposite side of the entranceway to the iron cage fixed over the Pictish symbols visible on the right

To the north-north-west of the summit enclosure, midway down the natural slope, is a level terrace 15 m long and up to 5 m broad. Further to the northeast, beyond the foot of the slope from the summit, there are traces of a fifth rampart along the interior edge of an external rock-cut ditch measuring 6 m wide and almost 3 m deep. The eastern end of this rock-cut ditch appears to have been truncated by quarrying, which extends along the north-eastern flank of the hill.

The excavation

Scheduled Monument Consent was obtained from Historic Scotland prior to the excavation, which required strict adherence to an agreed methodology. Crucially, the methodology allowed only for the reexcavation of Charles Thomas's previous trenches and limited sample excavation of any undisturbed archaeological deposits encountered within these. The aim of this methodology was to recover and record environmental and artefactual evidence from secure archaeological contexts and the backfill from the 1960 intervention.

The excavation of Trusty's Hill took place between 20 May and 2 June 2012 in dry sunny conditions for all but one of the days. In all, four of Thomas's seven trenches were re-opened. The identification

number attributed to each trench adhered to Thomas's system. Therefore Trench 2 was excavated to re-examine the circular depression at the entranceway, Trenches 4 and 5 to investigate the eastern and western sides of the central summit enclosure respectively and Trench 6 to expose the rock-cut ditch at the northern side of the site (Fig. 2.1). The total area exposed, excluding an abortive Trench 4 (see Chapter 7), measured 74.6 m^2 representing just 2.6% of the entire site. However, in accordance with the conditions of scheduled monument consent, only half of the exposed deposits were excavated, amounting therefore to only 1.3% of the site. Prior to backfilling, terram biotextile sheets were laid out over each trench.

The underlying drift geology of the Boreland Hills consists of Quaternary Period silt, sand and gravel alluvia. These are comprised of normally soft to firm consolidated and compressible silty clay with occasional layers of silt, sand, peat and basal gravel. The solid geology consists of Cairnharrow Formation Wacke sedimentary bedrock with thin- to medium-bedded greywacke of variable proportion, interbedded with silty mudstone and pockets of distinctive thick-bedded parallel laminated greywacke with abundant concretions. The underlying natural subsoil encountered in the trenches at Trusty's Hill was a loose orange brown silty sand overlying greywacke bedrock. The individual trenches are described below.

Trench 2

Trench 2 measured 18.91 m^2 and was located at the north-east side of the entranceway opposite the Symbol Inscribed Stone (Fig. 2.1).

The earliest stratigraphic feature cutting the natural greywacke bedrock (2009) within Trench 2 was a rock-cut basin [2008]. This was irregularly curvilinear in shape and measured 1.8 m wide east–west across its top and 0.8 m deep. Only the eastern half of this feature was excavated and exposed (Fig. 2.3). While the break of slope across the top was gradual, the sides, which were all smoothly cut, were near vertical to the north-east and south-west and less so to the east, which had a gradient of 1.5 m in 0.8 m (Fig. 2.4). There was a sharp break of slope at the basin's base which was flat and measured 1.35 m wide east–west. The primary fill deposit (2007) within this rock-cut basin (Fig. 2.4) was 0.2 m deep and comprised of a heavily waterlogged, very soft, dark brown organic silt with frequent inclusions of wood (SF 071, 072, 073, 116, 119, 121 & 177), unburnt and cremated animal bones (SF 118, 120, 157, 158 & 275), charcoal (SF 154), vitrified stone (SF 117) and slingstones (SF 156).

Arranged along the top break of slope curving, along the top of the

southern perimeter of the rockcut basin, were large rounded granite boulders and angular greywacke stones (2010). The 0.27 m high faced edge of this arrangement of stones appeared to continue west, out with the break of slope of the rock-cut basin, where it formed a straight east–west aligned edge, towards the entranceway to the central summit of Trusty's Hill (Fig. 2.3). The westernmost extent of this east–west aligned stone revetment (2010) appeared to be overlain by a north-north-west–south-south-east aligned revetment of large angular flat greywacke stones (2011), 130–150 mm wide and 50–40 mm high, associated with a spread of rubble core to the immediate west. This rubble spread (2011) was one course, measuring 0.08 m, in height and was over 0.48 m wide, extending beyond the western edge of Trench 2, towards the entranceway to the central summit of Trusty's Hill (Fig. 2.3).

The primary fill (2007) of the rock-cut basin [2008], and by stratigraphic extension the stone revetment (2011), was overlain by a 0.5 m deep layer of backfill soil (2005) from Thomas's excavations (Fig. 2.4). This layer (2005) comprised of a compact mid-grey clayey silt with frequent inclusions of angular stones of various sizes, some vitrified, a quartz pebble (SF 051), slingstones (SF 068 & 155), unburnt and cremated animal bones (SF 067 & 153) and charcoal (SF 152). This layer of backfill soil was capped by a spread of large flat angular greywacke stones (2004/2006) including some vitrified stones (SF 151) measuring 0.1 m deep placed around the edge of the rock-cut basin (Figs 2.3 & 2.4). This layer was sealed by a 0.15 m deep layer of loose dark brown organic silt (2003) with frequent small roots and a substantial amount of modern glass. This was overlain by a 0.02 m deep layer of compact light brown silty sand and angular greywacke stones of various sizes (2002) and including several fragments of worked stone (SF 043 & 190), charcoal (SF 042), modern glass and paper. A 0.05 m deep layer of turf (2001), composed of loose dark brown sandy silt with occasional inclusions of small stones, formed the last stratigraphic layer in Trench 2.

Trench 4

Trench 4 was the largest of the excavation trenches measuring 30.31 m2 and was located at the east side of the central summit interior of Trusty's Hill (Fig. 2.1).

The earliest stratigraphic feature within Trench 4 was an irregular rock-cut linear trench or shelf [4021] partially exposed within the centre of the trench, cutting the natural subsoil (4019) and underlying greywacke bedrock (4022). This north–south aligned feature,

measuring over 0.80 m deep, was defined by a sharp break of slope at the top with varying smooth sides and irregularly stepped sides in the natural fissures of the underlying bedrock (Figs 2.6 & 2.7). This feature was overlain by a 0.17 m deep deposit (4016) of loose dark greyish brown silty sand containing inclusions of grit and small stone fragments, along with animal bones (SF 170 & 259), garnet (SF 193), slag (SF 171, 217 & 238), charcoal, charred seeds and charred nutshells (Fig. 2.5).

While not fully excavated, this deposit (4016) was almost certainly cut by two post-holes [4015 & 4017] identified as dips within the overlying rubble centre of the vitrified rampart (4004) surrounded by concentrations of vitrified stone (Fig. 2.5). The southernmost post-hole [4015] measured 0.3 m square and over 0.5 m deep and was defined by near vertical sides of vitrified stone. This post-hole was 1.6 m distant from the other post-hole [4017], which was sub-rounded in shape, measured 0.2 m wide and over 0.5 m deep and was also defined by near vertical sides of vitrified stone. Both post-holes were filled with loose rubble from the surrounding rampart core (4004). The rampart core (4004) comprised drystone greywacke angular stones, measuring between 200 × 100 × 50 mm and 300 × 270 × 100 mm in size. Many of these stones were fire-reddened and vitrified (SF 130). The soil matrix between the stones was composed of loose dark brown clayey silt with frequent inclusions of small stones and grit, along with unburnt and cremated animal bones (SF 127, 129 & 246), charcoal (SF 126) and metal slag fragments (SF 227). A north–south aligned length of the rampart was exposed in Trench 4. This segment measured 5.40 m long and ran parallel to the alignment of the rock-cut shelf [4021]. It measured 1.6 m wide and 0.69 m high. The rampart was not fully excavated. Instead excavation was limited to the removal of a sufficient depth of overlying stone to define the exterior and interior faces, and a narrow sondage was excavated along the southern edge of Trench 4 to expose the rampart's full width (Figs 2.5 & 2.6).

Fig. 2.3. Plan of rock-cut basin, Trench 2

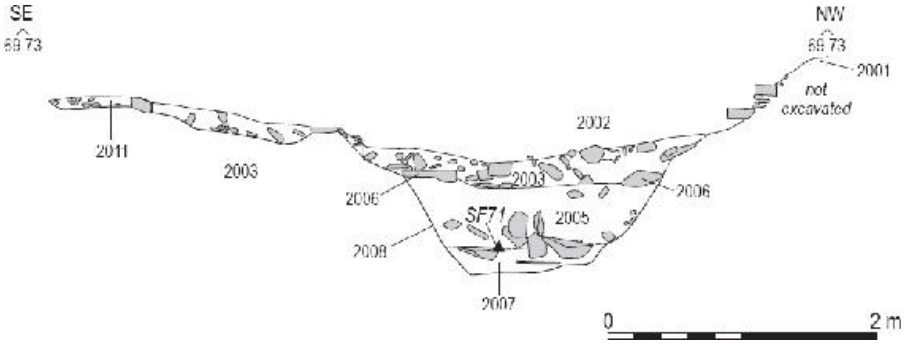


Fig. 2.4. South-east facing section of rock-cut basin, Trench 2

Separately to the west of these features were two discrete deposits of soil overlying the natural subsoil (4019) located along the trench's western edge (Fig. 2.5). At the south-western corner of Trench 4 was a loose, mid-brown, sandy silt (4008) which was 0.25 m deep and contained frequent inclusions of small angular pebbles and stones, animal bone fragments (SF 054, 172, 181 & 250) and charcoal (SF 182). Just to the north of this, along the western edge of Trench 4 but separated by an outcrop of bedrock (4022), was another deposit of loose, mid-brown, sandy silt (4020), which was examined by a small sondage (Fig. 2.5) and found to be 0.10 m deep, with frequent inclusions of small angular stones, fragments of metal slag (SF 230), animal bones (SF 260) and a single glass shard (SF 194).

Overlying the eastern edge of deposit (4020) and abutting the interior edge of the rampart (4004), was a rough uneven spread of rectangular and angular slabs of greywacke stone (4018). Each slab measured between 350 × 250 × 50 mm and 350 × 350 × 50 mm (Fig. 2.7). The overall spread (4018) measured 0.25 m deep and 1.4–3.6 m wide from the interior edge of the rampart (Fig. 2.5). The matrix of soil between these stones was identical to the overlying layer (4007). It comprised loose, dark greyish brown silty sand 0.25–0.45 m deep and extending 2.7–5.5 m west from the interior edge of the rampart (Fig. 2.8 & 2.9). Within this layer of rich organic soil (4007) there were numerous inclusions of animal bones (SF 062, 079, 088, 090 & 093), charcoal (SF 063, 089, 091 & 094), lithics (SF 053, 064, 092, 095, 140, 187, 188 & 189), crucible fragments (SF 087, 106 & 162), furnace lining fragments (SF 111 & 131), a heating tray fragment (SF 175), a crucible stand fragment (SF 278), clay mould fragments (SF 174, 192 & 279), a tuyere fragment (SF 240), metal slag fragments (SF 096, 107, 108, 128, 137, 160, 178, 232 & 234), hammerscale (SF 207, 213 & 214), iron pyrites (SF 109), fire-cracked granite (SF 132), vitrified stone (SF 164, 185 & 199), an iron pin (SF

113), a fragment of garnet (SF 195) and a rim sherd of E1c pottery (SF 114). This dark soil deposit (4007) also contained slingstones (SF 110, 112 & 123), several large greywacke slabs (each measuring around 400× 200 × 50 mm) and fragments of vitrified stone (SF 122). A soil sample (Sample 051) taken with a kubiena tin was extracted from the interface between this deposit (4007) and the layer of rubble (4003) that sealed this (Fig. 2.6).

West of the western extent of the dark soil deposit (4007), and overlying the easternmost extent of the rubble spread (4018), was a layer of moderately compact dark brown sandy silt (4011). This was 0.05–0.10 m deep and included frequent inclusions of small angular pebbles and stones, an iron fragment (SF 115), a lead fragment (SF 186), a crucible fragment (SF 169), metal slag fragments (SF 143, 161, 176, 179 & 233), fire-cracked granite (SF 168), a lithic (SF 180), a unworked stone (SF 183), slingstones (SF 149), numerous burnt and unburnt animal bone fragments (SF 141, 173 & 243) and charcoal flakes (SF 146 & 167).

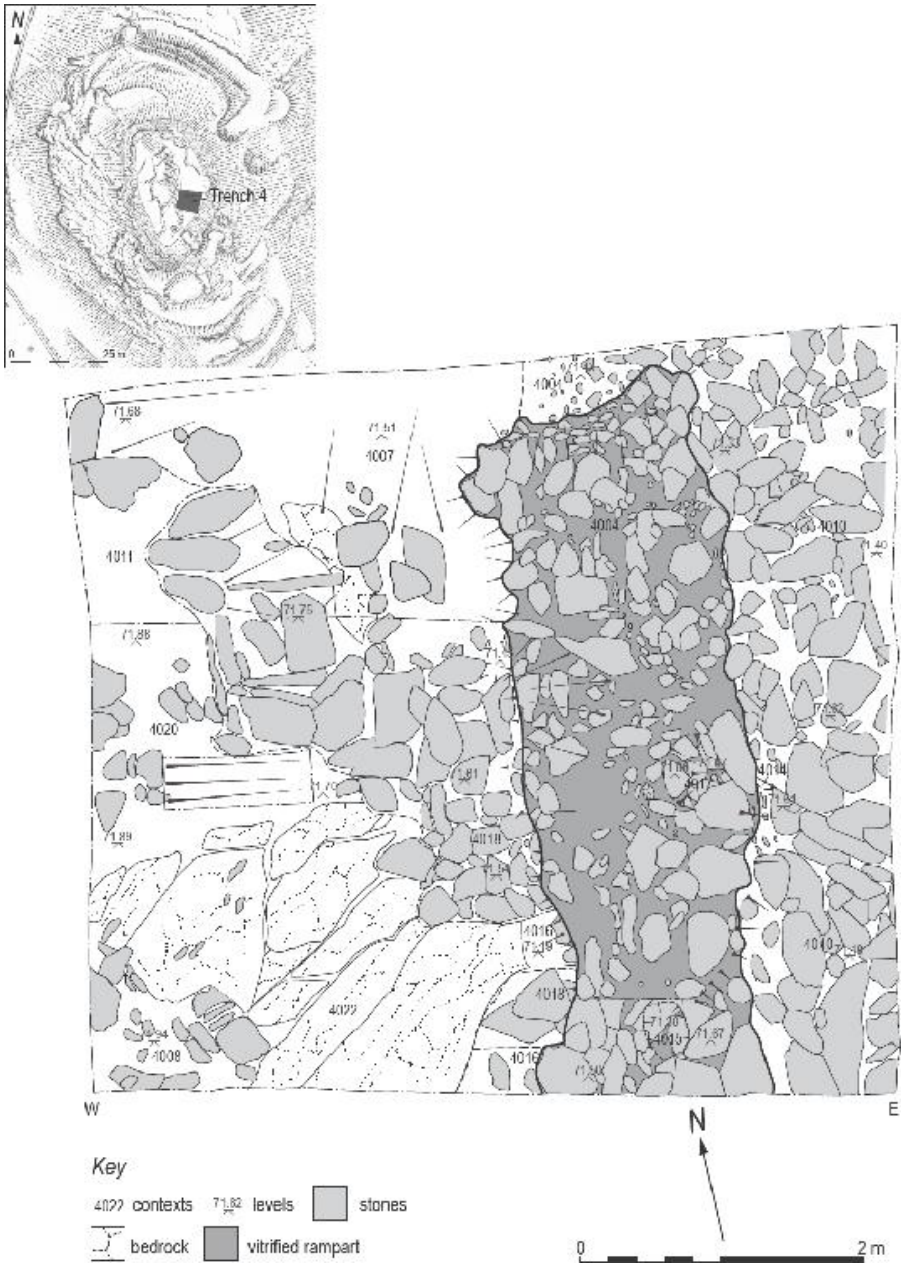


Fig. 2.5. Plan of rampart core (4004) and structural post-voids (4015 & 4017), exterior rubble spread (4010), interior rubble spread (4018) and deposits (4008 & 4020) in Trench 4

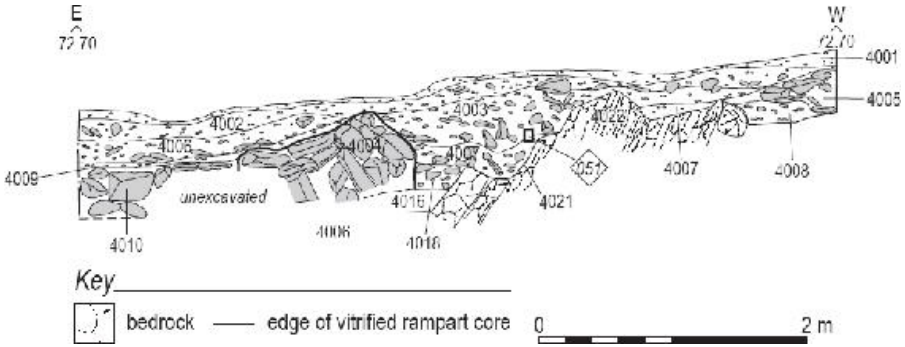


Fig. 2.6. North facing Section of Trench 4

Fig. 2.7. Rock-cut linear shelf [4021] with vitrified core of the rampart (4004) evident to the left, and dry stone rubble spread (4018) in the centre foreground, Trench 4, from the north.

Overlying layer (4011) was an irregular linear spread of large angular greywacke drystone slabs (4005), each measuring between 720 × 480 × 170 mm and 520 × 280 × 60 mm in size. The matrix between the slabs comprised a mid-brown sandy silt with frequent inclusions of pebbles and roots, animal bone fragments (SF 99 & 124), vitrified stone (SF 100) and charcoal (SF 101 & 125). The soil matrix was similar in its upper level to the layer (4002), which physically overlay it, but slightly darker and more similar in its lower level to the underlying deposit (4011). This 0.40 m deep spread of slabs (4005) extended across the western part of Trench 4 in a south-west–north-east alignment (Figs 2.8 & 2.9), sloping down towards the east as far as the western extent of deposit (4007) with which it was mixed.

Cutting through the central part of the exposed extent of layer (4011) were two features filled with concentrated deposits of charcoal rich soil (Fig 2.9). The more southerly of these was a circular spread

of compact very dark brown silty charcoal (4012), 0.12 m in diameter and 0.08 m deep. It contained occasional pebbles and some animal bone fragments (SF 272). The other deposit, which lay 1.50 m to the north, also comprised compact very dark brown silty charcoal (4013) and measured 0.24 m in diameter and 0.07 m deep. This contained occasional small angular stone inclusions, hammerscale fragments (SF 211), metal slag (SF 220 & 239) and fragments of burnt and unburnt animal bones (SF 252 & 270).

Overlying these deposits and the spread of stone slabs (4005) was a 0.18 m deep rubble layer of split and angular sandstone, shale and greywacke stones (4003), each on average measuring 200 × 150 × 50 mm and predominantly heat-reddened. This layer of stones extended west from the rampart (4004) across the interior of the site (Fig. 2.10). These stones sloped down towards the west in marked contrast to the eastern direction of the spread of stone slabs (4005) that underlay it. Contained within this rubble (4003) were frequent inclusions of vitrified stone fragments (SF 070) and two concentrations of rounded pebbles and cobbles identified as slingstones, one at the south side of Trench 4 (SF 059) and another (SF 085) closer to the north-west corner of Trench 4 (Fig. 2.10). The matrix within this stone rubble (4003) was a loose, dark greyish-brown, silt containing an iron object (SF 016), numerous animal bone fragments (SF 052, 065, 081 & 086), charcoal (SF 066 & 080), a fragment of snail shell (SF 084) and a fragment of tinfoil (SF 060).

Fig. 2.8. Excavation horizon of Thomas's Trench 4 comprising dark soil spread (4007) abutting west side of rampart core (4004) to the left and underlying interior stone slabs (4005) to the right, from the north-west

Along the entire eastern edge of Trench 4, extending over 0.90 m out from the exterior side of the rampart (4004), was a 0.40–0.65 m deep spread of large rectangular and angular faced drystone greywacke blocks (4010) ranging between 900 × 300 × 200 mm and 300 × 200 × 100 mm in size (Fig. 2.9). These large grey stones were markedly distinct from the reddened and vitrified rubble core of the rampart (4004) and contained many voids, particularly when close to the external side of the rampart. The spread (4010) sloped down the hillside beyond the eastern limit of Trench 4 (Fig. 2.11). The layer's matrix comprised loose, dark brown, clayey silt with inclusions of grit and small stones, burnt and unburnt animal bones (SF 104, 134, 142 & 249), crucible fragments (SF 201), metal slag fragments (SF 102, 148 & 235), charcoal (SF 103, 133 & 144) and the odd small piece of vitrified stone (SF 135). Within this spread of stones (4010) was a 0.46 m wide and 0.04 m deep irregular lens (4014) of moderately compact dark brown to black silty charcoal containing numerous and large fragments of burnt and unburnt animal bone (SF 257 & 273) and some fragments of metal slag (SF 276).

Overlying the spread of stones (4010), at the southeast corner of Trench 4 (Fig. 2.9), was a 0.04 m deep layer of moderately compact

mid-brown silt (4009) with frequent pebble and small angular stone inclusions, burnt and unburnt animal bones (SF 074, 082 & 258), metal hammerscale and slag fragments (SF 215 & 236) and charcoal (SF 075 & 083). This thin layer was itself sealed by a 0.30 m deep rubble layer of split and angular greywacke stones (4006), each measuring between 200 × 120 × 70 mm to 600 × 200 × 150 mm in size and predominantly heat-reddened. This layer of stones (4006) extended to the east 1.10 m from the rampart (4004) and down the exterior slope of the hill (Fig. 2.10). Contained within the full depth of this rubble (4006) were frequent inclusions of vitrified stone fragments. Its matrix was a loose, dark brown, silty sand containing numerous animal bone fragments (SF 034, 058, 078 & 159) and charcoal (SF 061 & 077).

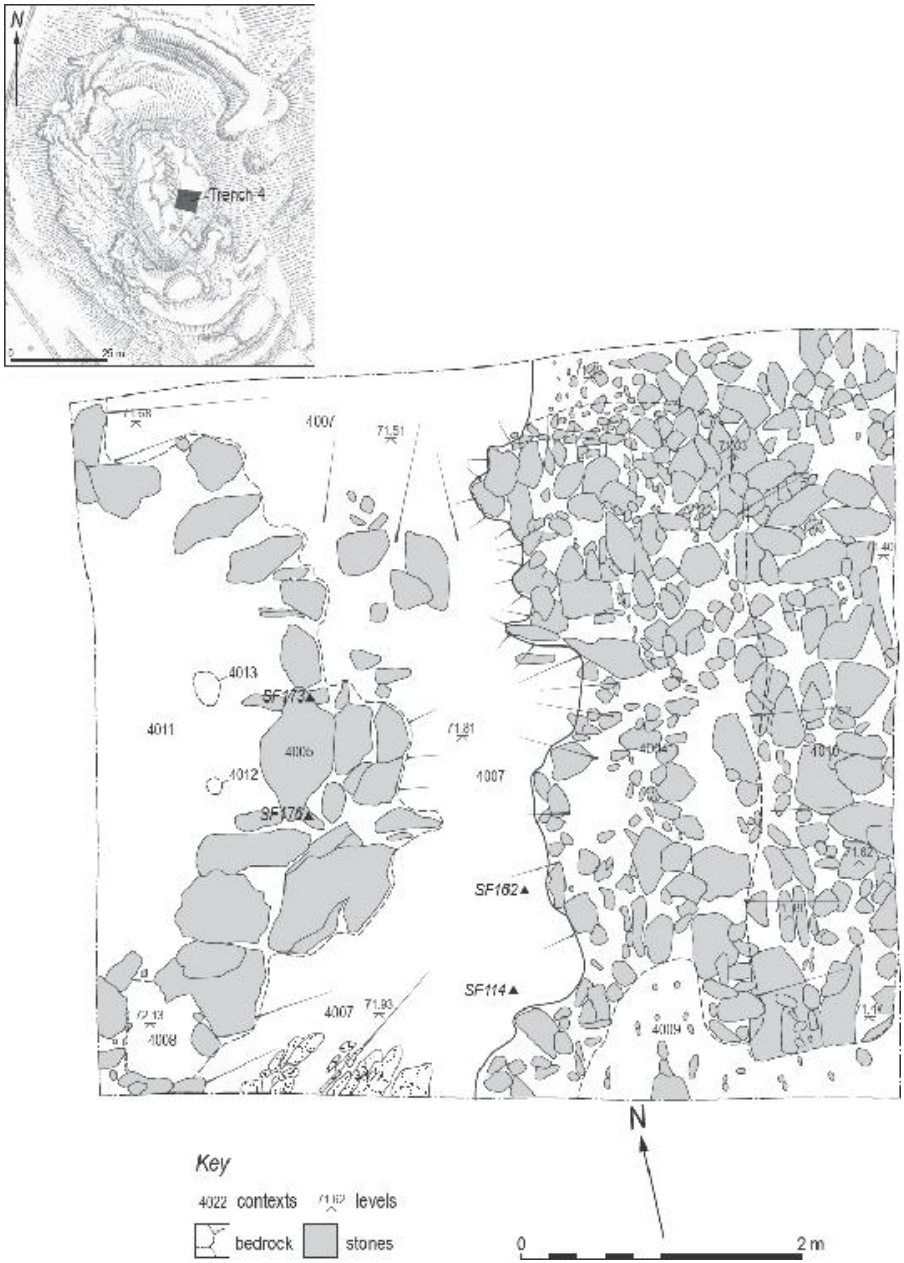


Fig. 2.9. Plan of dark soil spread (4007) abutting west side of rampart core (4004), dark soil spread (4011) and underlying interior stone slabs (4005), and exterior soil spread (4009) overlying rubble spread (4010), Trench 4

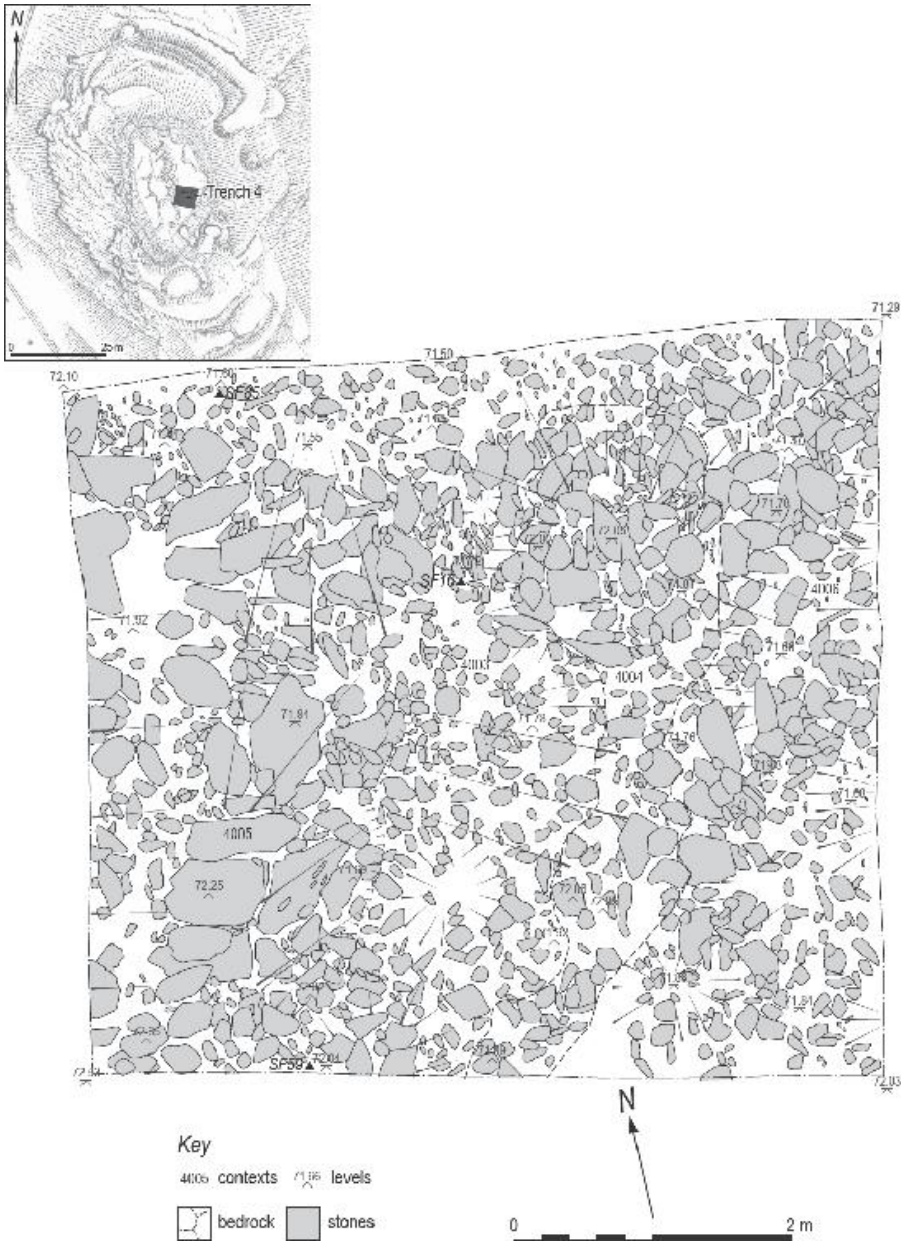


Fig. 2.10. Plan of heat-reddened rubble spread (4006) across exterior east side of the rampart core (4004) and heat-reddened rubble spread (4003) across the interior west side, overlying stone slab spread (4005), Trench 4

Fig. 2.11. Exterior rubble collapse (4010) on the left, to the east of rampart core (4004) in the centre, Trench 4, from the north

Both interior and exterior layers of rubble (4003 & 4006), as well as the rampart (4004) itself, were truncated to the north of Trench 4 by stone robbing. Sealing both the exterior and interior layers of collapsed rubble (4003 & 4006) was a 0.15–0.20 m deep backfill layer of moderately compact, dark greyishbrown, silty sand (4002). The layer contained frequent root bioturbation, pebbles, small to large rounded and angular stones (particularly concentrated in some areas) and vitrified stone fragments (SF 005). Numerous animal bone fragments (SF 004, 010, 011, 012, 021, 030, 076, 138, 139, 248 & 267), charcoal (SF 014 & 027), fire-cracked granite (SF 136), hammerscale (SF 209 & 212), metal slag (SF 229 & 237), a crucible fragment (SF 037), undiagnostic vitrified material (SF 200), a copper alloy roundel (SF 023), an iron rod (SF 036), a slingstone (SF 024) and a flint lithic (SF 039) were recovered from this backfill (4002). This backfill deposit was itself sealed by a thin turf and topsoil layer (4001) comprising loose dark brown silty sand, up to 0.20 m deep in places, but through which the highest surviving stones of the rampart (4004) were visible. Occasional vitrified stone fragments (SF 002, 003 & 006), modern glass shards (SF 038) and a stone rubbing tool (SF 001) were recovered from this latest stratigraphic layer in Trench 4.

Trench 5

Trench 5 measured 15.25 m^2 and was located at the west side of

Trusty Hill's central summit enclosure (Fig. 2.1).

One of the earliest stratigraphic features within Trench 5, cut into the loose, orange-brown, silty sand subsoil (5020) and natural greywacke (5008) outcropping, was a narrow linear rock-cut feature [5004]. This extended for 1.95 m from near the northern corner of Trench 5, through the eastern end of the trench, to the southern trench edge on a north-north-east to south alignment (Figs 2.12 & 2.13). The feature's profile appeared as a V-cut to a depth of 0.25 m, with a sharp break of slope on the western side and a more gradual slope on the eastern side. The eastern side of the cut was discoloured orange-brown suggesting heating. To the west of this was another rock-cut feature; an irregular sub-circular depression [5023] measuring 0.80 m long, 0.80 m wide and 0.40 m deep. It had a sharp break of slope at the top, gradual sloping irregular sides and a rough-hewn V-shaped base. The sides of this rock-cut feature [5023] also exhibited signs of heating through slight orangebrown discolouration and it was filled with a sterile loose, grey-brown, clayey silt with gravel and pebble inclusions as well as large packing stones (5009).

To the west of these rock-cut features, also cutting the loose, orange-brown, silty sand subsoil (5020) and natural greywacke (5008), was an irregular rock-cut linear trench or shelf [5024] partially exposed by a sondage along the southern half of the trench (Figs 2.12 & 2.13). This north-north-west–south-south-east aligned feature [5024] was defined by a sharp break of slope at the top with varying smooth and irregularly stepped steep cuts into the natural fissures of the underlying bedrock. This created a series of three conjoined, roughly cut and west oriented, quarried faces. It measured 1.15 m deep from the break of slope at its eastern edge to its base at the western edge of Trench 5.

The interface of this rock cut feature [5024] was overlain by a moderately compact dark brown sandy silt (5017) containing inclusions of grit and small stone fragments particularly throughout the upper part of this deposit. This deposit extended for 2.9 m from the western edge of Trench 5 towards the quarried rock face near the centre of the trench (Fig. 2.14). The depth of this deposit ranged between 0.10 and 0.35 m. A soil sample (Sample 052) taken with a kubiena tin was extracted from this deposit (Fig. 2.13). There were also inclusions of burnt and unburnt animal bones (SF 050, 145, 247, 266, 268 & 277), charcoal (SF 049 & 147), an incomplete circular glass bead (SF 197), haematite (SF 196), five crucible sherds (SF 203), slag (SF 226), failed crucible sherds (SF 231 & 274) and hammerscale (SF 204, 208 & 218).

This layer (5017) of material was cut by the base of a sub-circular post-hole [5021], 0.30 m in diameter and which was apparent for a depth of at least 0.05-0.10 m with an undulating, gently sloping, flat base oriented east–west. This was filled by a loose to moderately compact dark brown sandy silt (5022) with occasional small stones and inclusions of burnt and unburnt animal bones (SF 150, 165 & 271). There was also a small amount of charcoal (SF 166) within this. The lower fill may have been disturbed at an unknown period by a burrowing animal, as a likely burrow truncated [5021] and extended to the west under the westernmost section of Trench 5. The burrow was not excavated, though the void was confirmed by probing. The upper fill however appeared undisturbed and partially overlay several probable packing stones along the north-eastern, southern and western edges of the post-hole.

The upper extents of post-hole [5021] and its fill (5022) were largely lost in the overlying rubble and matrix of the rampart (5005), which extended east for up to 1.17 m from the western edge of Trench 5. The feature spanned across the northern and southern trench edges on a north-north-west to south-south-east alignment (Fig. 2.14). The rubble core of the rampart (5005) contained numerous long and angular greywacke stones, many of which were vitrified, measuring between 200 × 100 × 50 mm and 350 × 250 × 100 mm in size. Its matrix comprised dark brown silty sand with inclusions of burnt and unburnt animal bones (SF 163 & 256), slag (SF 219 & 222). Of particular note within the rampart core (5005) was a concentration of vitrified and accreted greywacke stones associated with dark brown silty sand (5018) in the south-west corner of Trench 5 (Fig. 2.13 & 2.14). This lens contained burnt and unburnt animal bone (SF 069, 098 & 254), crucible sherds (SF 097 & 202), hammerscale (SF 216) and slag (SF 221). Higher within the matrix of the rubble core (5005) was a circular concentration of charcoal-rich dark brown clayey sand (5012) measuring 0.05 m in diameter and 0.01 m deep (Fig 2.15). This was completely sampled and included animal bones (SF 262) and vitrified stone (SF 228). The upper rampart core (5005) included a layer of large greywacke stones (5002) up to 700 × 250 × 200 mm in size (Fig. 2.13 & 2.16). Many of these stones were discoloured orange-brown through heating, and there were numerous vitrified stones (SF 007). The matrix between the stones ranged between a dark brown silty sand, likely through bioturbation from the top-soil, through to a reddish brown sandy gravel containing animal bones (SF 008, 048 & 243), charcoal (SF 044), an iron file (SF 022), slag (SF 210) and lithic fragments (SF 242). The rubble rampart (5005) and its

constituent lenses (5018/5012/5002) survived up to 0.50 m high in all.

Between the interior rock-cut features [5023 & 5004] and the rubble rampart (5005) and physically overlying the deposit (5017) was a 0.07 m deep layer of medium to large sized flat greywacke stones within a dark brown silty sand matrix (5010/5011). This extended east from the interior edge of the rampart (5005) for up to 2.1 m as far as the rock cut faces [5024] (Fig. 2.13 & 2.14). There were numerous inclusions of burnt and unburnt bone (SF 041, 055, 057, 255 & 263), charcoal (SF 040 & 056) and hammerscale (SF 241) within the matrix of this stone spread (5010/5011).

Overlying stone spread (5010/5011) was a moderately compact dark brown organic sandy silt deposit (5014) with moderate inclusions of small stones and charcoal throughout. This extended for over 3 m from the eastern edge of the rampart (5005) as far as the rock cut face [5024] and varied between 0.02 m and 0.27 m in depth (Fig 2.13 and Fig. 2.15). From the western part of this layer (5014), near the eastern edge of rampart (5005), a rim sherd of samian ware was recovered (SF 032). There were frequent inclusions of other finds from this deposit including charcoal (SF 031 & 047), burnt and unburnt animal bones (SF 033, 046 & 251), a spindle whorl (SF 035), a fired clay lump (SF 191) and hammerscale (SF 224).

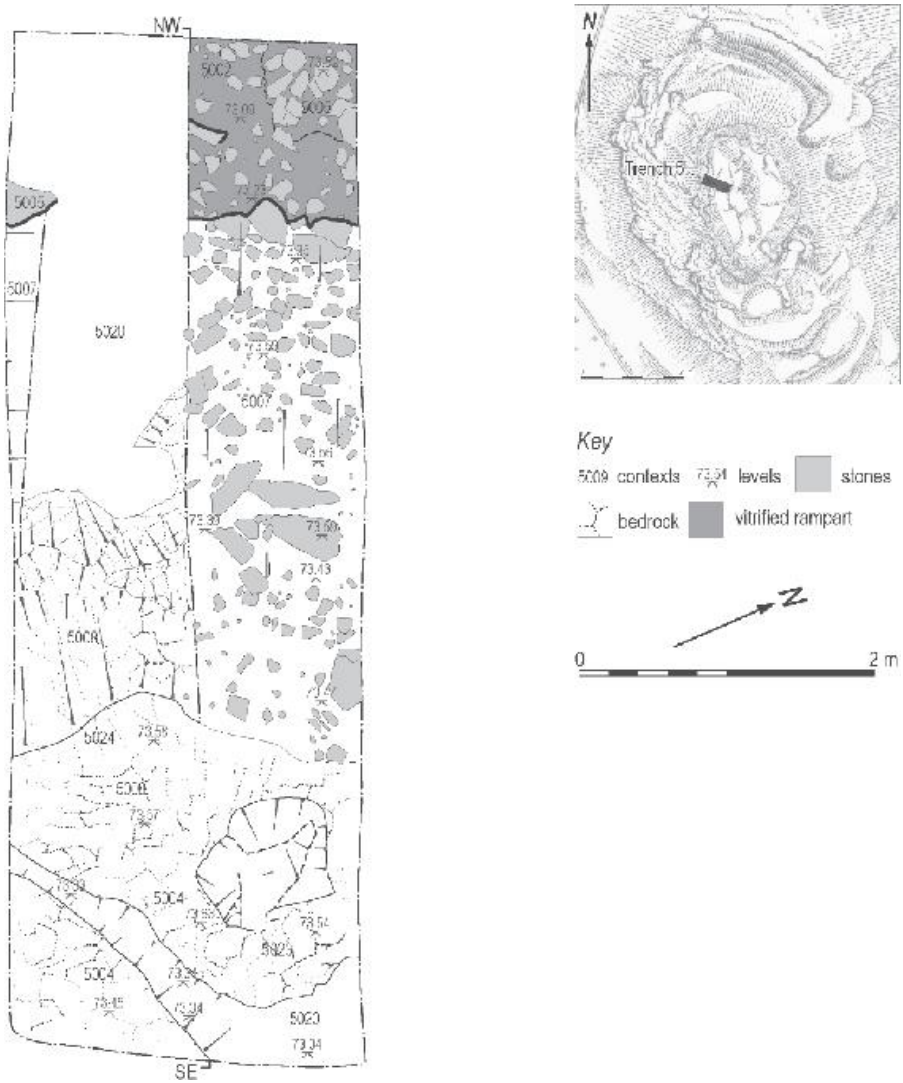


Fig. 2.12. Plan of rock-cut shelf [5024] through subsoil (5020) and natural greywacke (5008) partially exposed within sondage, and interior rock-cut features [5004] and [5023], Trench 5

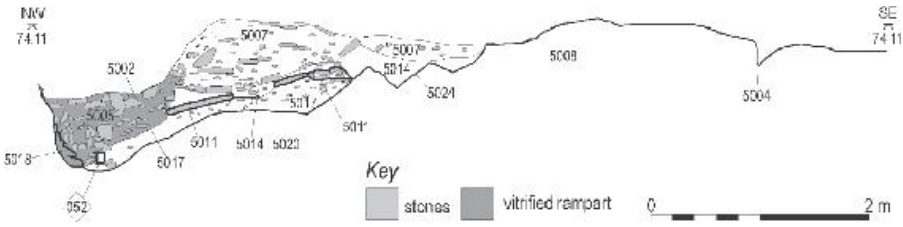


Fig. 2.13. South-west facing Section of Trench 5 sondage

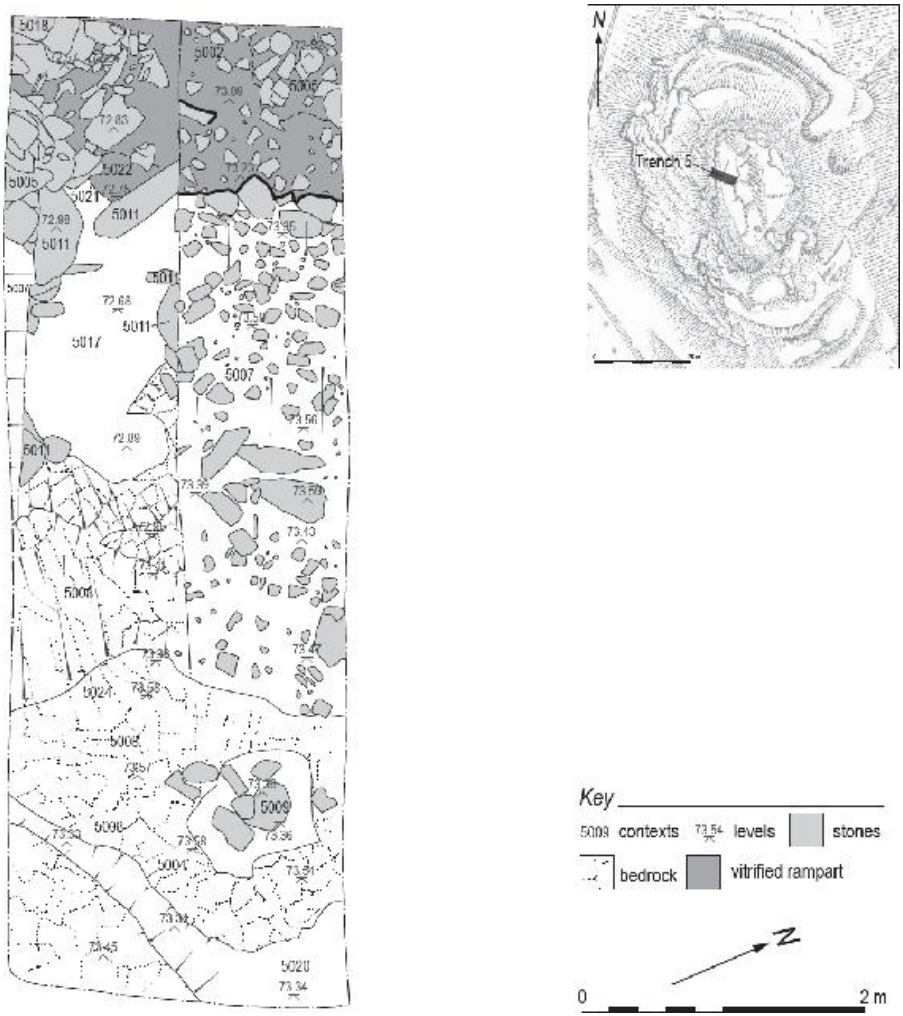


Fig. 2.14. Plan of deposit (5017) and overlying stone slabs (5011) abutting the interior edge of the rampart core (5005 & 5018) and post-hole (5021), exposed within Trench 5 sondage

The charcoal rich layer (5014) was sealed by a deposit of split and angular greywacke stones (5007/5013), each measuring between 200× 120 × 70 mm and 600 × 200 × 150 mm in size and predominantly heat-reddened with frequent inclusions of vitrified greywacke stone. The layer's soil matrix comprised moderately compact, reddish-brown, silty sand and gravel. This deposit (5007) had a bell-shaped profile in section, with the highest point to the west where it began to slope gently towards the east (Fig. 2.13). The deposit ranged between 0.11 m and 0.55 m in depth and extended across the entire width of Trench 5 though not its length, falling short of rock-cut features [5004] and [5009/5023] to the east (Fig. 2.16).

Emerging from the north-easternmost extent of rubble spread (5007) were two unheated worked stones, one an unexcavated sub-square block faced on two sides located near the north-eastern side of the trench (Fig 2.17), and the other a large stone with two distinctive rounded recesses (5013; SF 029; Fig. 2.18). A socketed iron tool (SF 026), charcoal (SF 028), hammerscale (SF 225) and numerous unburnt animal bones (SF 025 & 264) were recovered from this deposit.

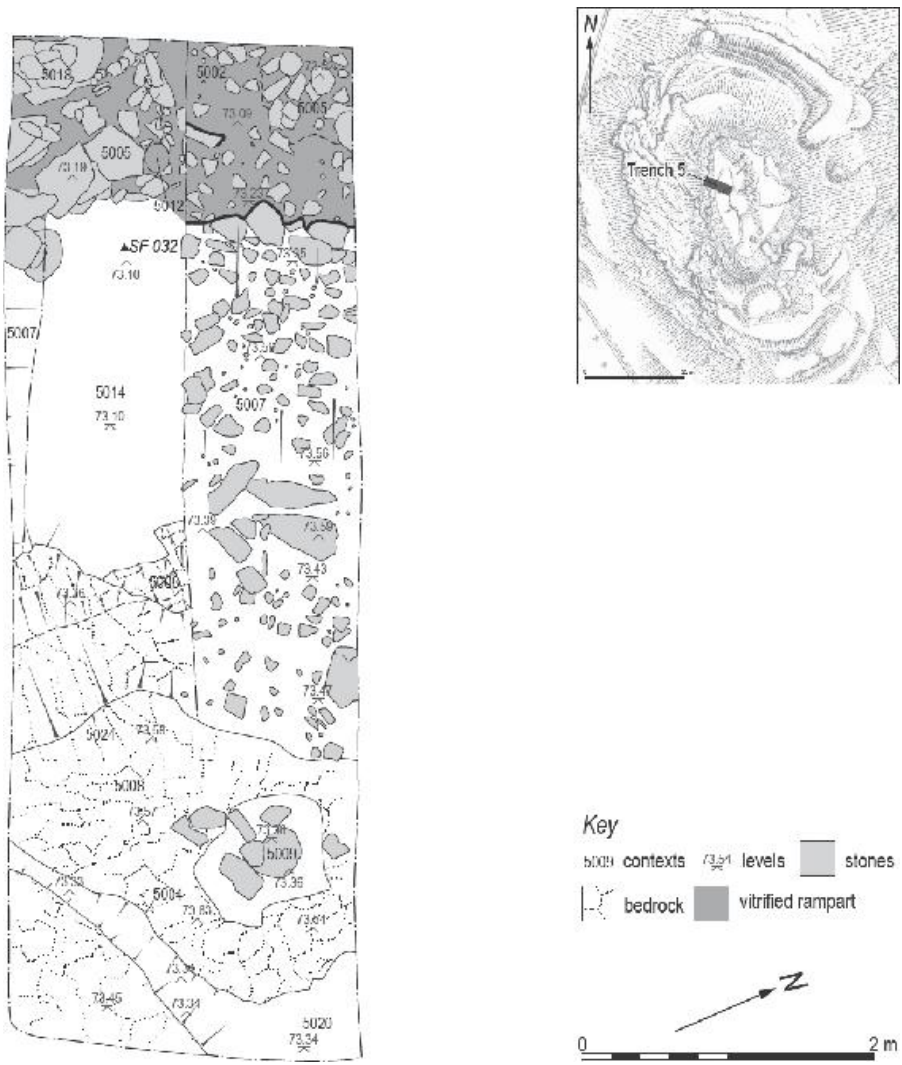


Fig. 2.15. Plan of deposit (5014), rampart core (5005 & 5018) containing deposit lens (5012), exposed within Trench 5 sondage

This spread of rubble (5007/5013) was overlain by a loose layer of dark orange-brown silty clay (5003/5006) with occasional small stone inclusions, up to 0.40 m deep in places and extending across the

entirety of Trench 5. Numerous burnt and unburnt animal bone fragments (SF 009, 048 & 244), charcoal (SF 015 & 045), slag (SF 206), a stone with vitrified surface (SF 020), a rubbing stone (SF 018), a burnt pebble (SF 019) and lithics (SF 013 & 017) were recovered from this backfill soil deposit (5003). This was itself sealed by a thin turf and topsoil layer (5001) comprising loose dark brown silty sand, up to 0.20 m deep in places. This was the latest stratigraphic layer in Trench 5.

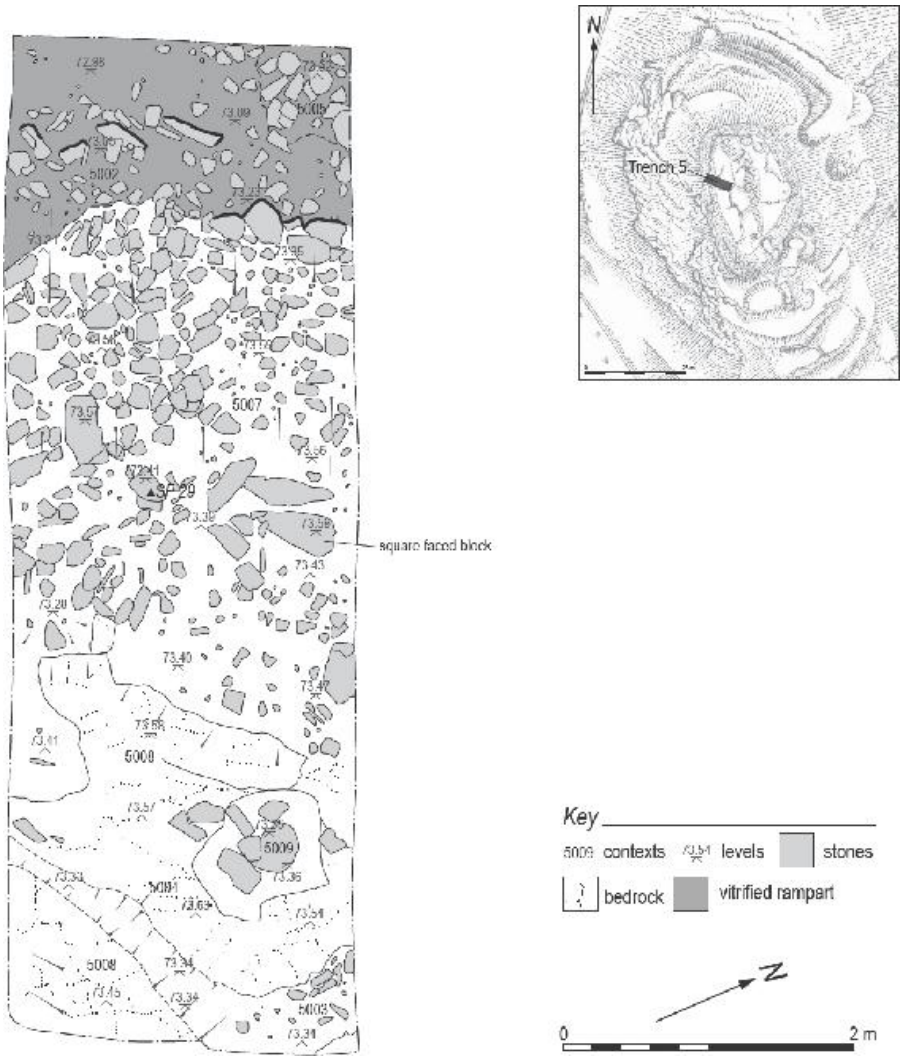


Fig. 2.16. Plan of rampart deposit (5002) and rampart collapse (5007), Trench 5

Trench 6

Trench 6 measured 10.13 m^2 and was located at the north-north-east

side of Trusty's Hill (Fig. 2.1). The earliest demonstrable stratigraphic feature cutting the natural greywacke bedrock (6004) within Trench 6 was the rock-cut ditch [6003]. This east-south-east–west-north-west oriented linear ditch measured 5.8 m wide at the top, c. 3.2 m wide at its base and was up to 2.8 m deep (Figs 2.19 & 2.20). From a sharp break of slope at the top, the angle of the slope along the northern outer edge of the ditch was approximately 30° in a series of vertically cut shelves. The break of slope at the top along the southern inner edge of the ditch was also sharp, but with a slightly shallower angle of slope, of approximately 45°, cut in a series of vertical shelves. The break of slope at the base was also sharp. The base of the ditch was partially exposed and comprised a flat surface of weakly cemented weathered bedrock, which was slightly over-excavated. A rock slip, comprising a single large boulder of greywacke rock that had broken off the southern side of the ditch, was also exposed.

Fig. 2.17. Sub-square faced block within rubble collapse 5007, Trench 5

Fig. 2.18. Anvil stone (SF 29) with two distinctive rounded recesses within rubble collapse 5007, Trench 5

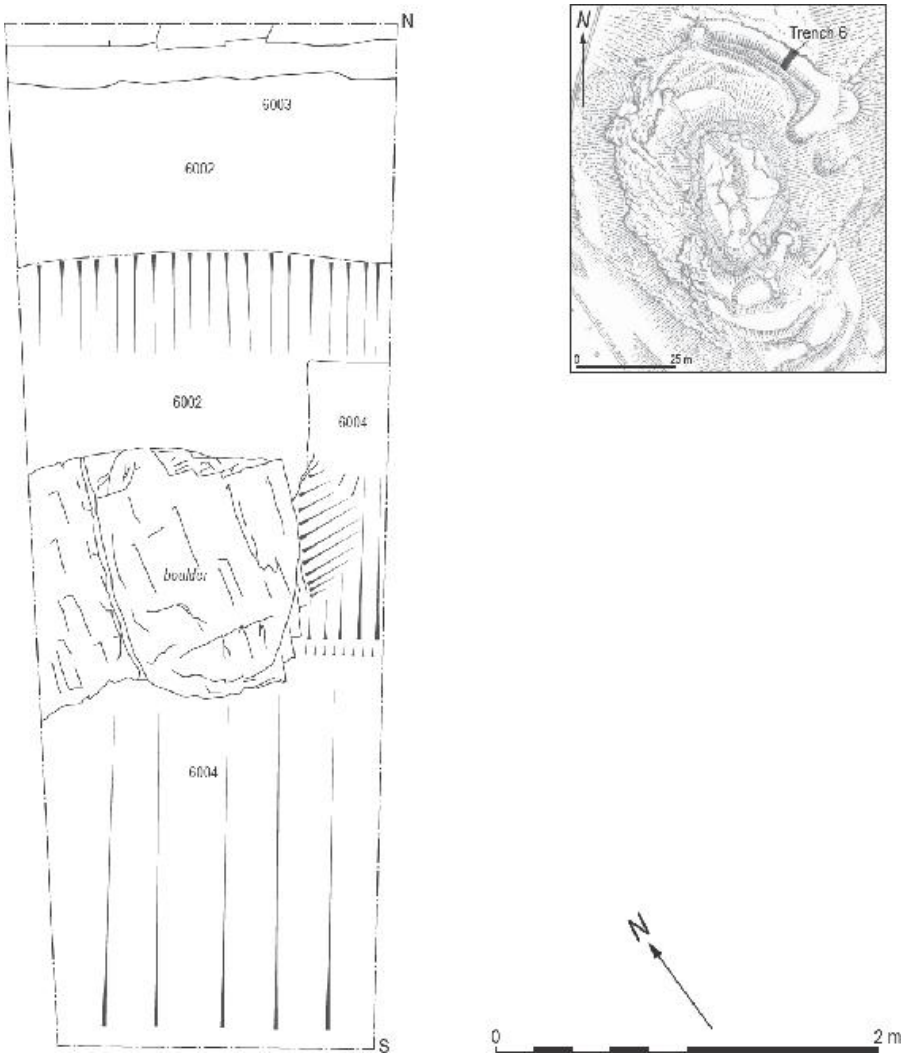


Fig. 2.19. Plan of Trench 6

The ditch was filled with loose, orange-brown silty sand (6002), containing many small angular stones, which resembled shattered bedrock rather than collapsed rubble. The depth varied across the trench, but was 1.2 m at its deepest. This deposit was uniformly similar throughout its depth with no signs of stratified layers or artefacts. A soil sample (Sample 050) taken with a monolith tin was extracted from the interface between the ditch fill (6002) and the underlying bedrock (6004). This deposit (6002) lay directly below the topsoil (6001), which comprised of loose, light brown, silty sand 0.10 m deep. This was the latest stratigraphic layer in Trench 6.

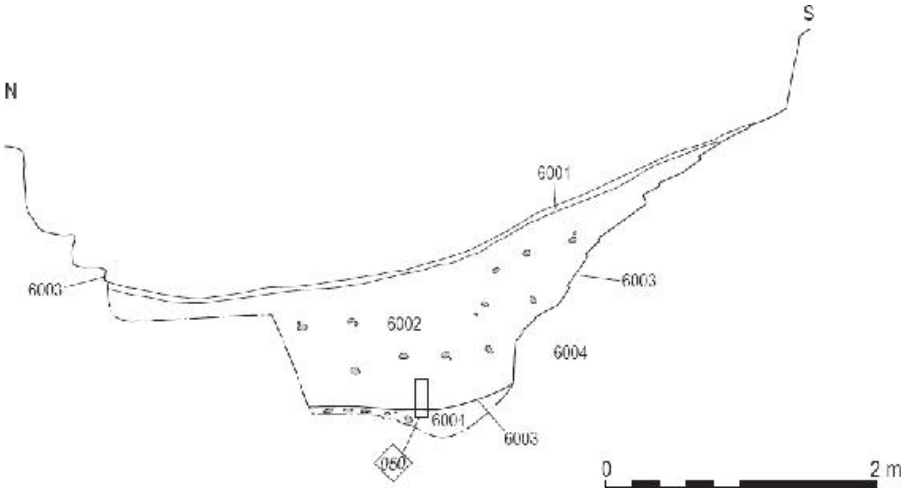


Fig. 2.20. West facing section of Trench 6

Laser scan survey of Pictish inscription

A series of carvings are apparent on a north-east facing natural outcrop of greywacke to the left of the entranceway to the summit of Trusty's Hill (Fig. 2.21). The exposed surface is divided vertically by a natural fissure. The upper part of the slab is dominated by two large symbols. The Pictish carvings include a double-disc and Z-rod symbol to the left of the natural fissure, and a 'Pictish beast' and sword or pin, and emanating spirals where this appears to pierce the underside of the beast, on the right hand side of the fissure. A human face mounted with two spiral horns has also been carved at the lower left hand corner. A considerable amount of early modern graffiti has also been carved onto the outcrop, comprising initials, dates and other doodles.

A laser scan survey of the outcrop undertaken in June 2012 by the Centre for Digital Documentation and Visualisation LLP provides the most accurate record to date of the Pictish inscription at Trusty's Hill. The laser scan survey was undertaken following the temporary removal of its protective iron cage and the hand cleaning of lichen, turf and topsoil that obscured the inscribed surface (Fig. 2.22 & 2.23).

Based on the new laser scan, a number of initial observations can be made. In contrast to the survey of the Pictish Inscription undertaken in the early 2000s (see Fig. 1.12), no ogham was apparent along the southern, left hand edge of the inscribed stone. Nor was the cup-mark above the 'sea-beast' apparent. It should also be noted that the 2012 laser scan confirms that the Z-rod and double disc symbol do not interweave as incorrectly depicted by John Romilly Allen and Joseph Anderson (1903, 477–8), but intercut each other across the lower bar

of the double disc (compare Fig. 1.6 with Fig. 2.21). In addition, the 2012 survey adds new detail to the 'Pictish beast' and in particular showing the worn remnants of an elongated lower snout apparently extending across the natural fissure and near the lower right corner of the double-disc and Z-rod. Furthermore, the right-hand horn of the horned head at the bottom of the stone cuts one of the nineteenth century graffiti signatures demonstrating that the horned head is not ancient. This confirms John Stuart's suspicion that the horned head was a more recent addition to the other carvings (1856, 31). A detailed analysis of the laser scan is found in Chapter 6.

Fig. 2.21. 2012 Laser scan survey of inscribed symbols at Trusty's Hill. © DGNHAS/ CDDV

Fig. 2.22 Pictish inscribed stone after the temporary removal of the protective cage but prior to cleaning. © DGNHAS/CDDV

Fig. 2.23 Pictish inscribed stone after cleaning. © DGNHAS/CDDV

Chapter 3

Dating and phasing

Archaeomagnetic dating

Samuel Harris and Cathy Batt

Heated archaeological materials can retain a record of the Earth's magnetic field when they were last heated, and this property can be used to date them, provided they have been heated sufficiently and have remained *in situ* since heating (Batt 2013). Vitrified material provides a good candidate for archaeomagnetic dating due to the high temperatures achieved during vitrification. Nine heated blocks of vitrified stone from the rampart core in Trenches 4 and 5, on the east and west sides of the summit respectively, were oriented on site and sub-sampled with a diamond rock saw at Lancaster University, before being analysed at the University of Bradford's archaeomagnetic laboratory.

The natural remanent magnetisations of 80 specimens were measured on the Minispin spinner fluxgate magnetometer and the results plotted on a stereographic plot (Fig. 3.1) with each sampled block represented by a different symbol. Alpha-95 (Fisher 1953) is plotted for each sample, showing the 95% probability that the true direction lies within that cone of confidence (Table 3.1). An alpha-95 value of less than 5° is usually required for dating purposes (Zananiri *et al.* 2007). While the measurements from single blocks group well (with the exception of TH2 and TH9), different blocks display very different mean magnetic directions, as demonstrated by the large alpha-95 value for the overall sample based mean. Alternating field demagnetisation using a Molspin demagnetiser of a number of pilot samples showed that the magnetic directions are very stable and are likely to record the vitrification event.

The analysis indicated that the material sampled had been heated but was no longer in the position in which it was last heated. This may indicate that the material was heated elsewhere and then moved for incorporation into the feature or that it had slumped significantly since heating. If either of these scenarios are the case, the feature

cannot be dated by archaeomagnetic directional studies as the material is no longer in the position in which it was fired. Recently, regional models for Europe have been published including the intensity of the geomagnetic field (Pavón-Carrasco *et al.* 2009; Hervé *et al.* 2013). Material does not need to be *in situ* to be dated using this magnetic parameter and therefore the samples may be datable in future but, at present, dating with magnetic intensity is not sufficiently developed in the UK.

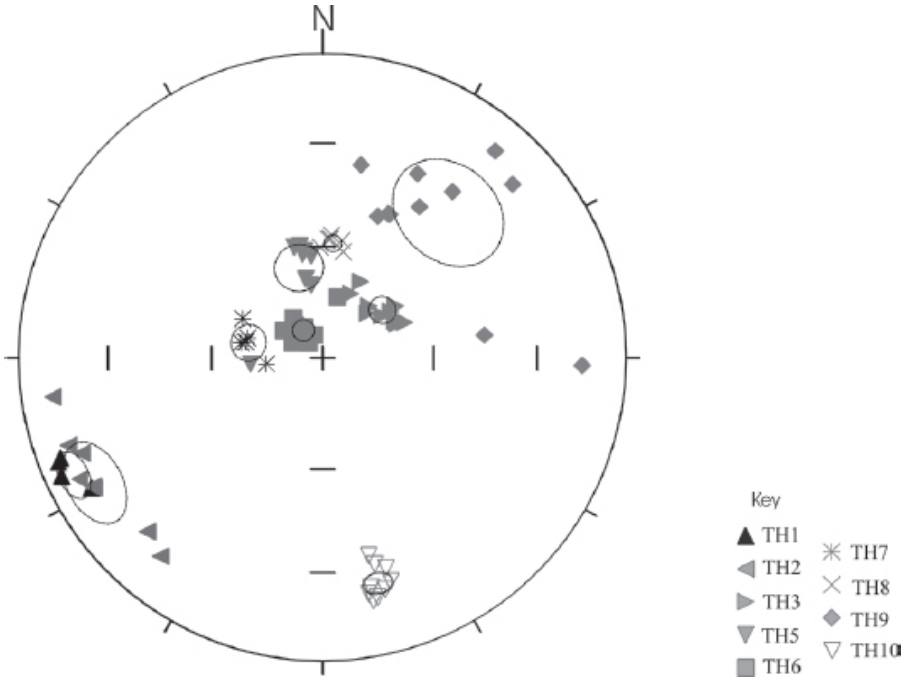


Fig. 3.1. Stereographic plot of the directions of natural remanent magnetisation of all specimens (declination plotted as angle from north, inclination as distance from perimeter to centre), showing uncertainty at 95% confidence for each block

Table 3.1 Mean magnetic directions for each sampled block and their uncertainty at alpha-95

Sample No.	*No. specimens used in mean*	*Mean Declination (°)*	*Mean Inclination (°)*	*Alpha-95(°)*
TH1	5	244.9	10.1	5.1
TH2	8	241.4	15.1	9.3
TH3	10	50.7	69.5	3.6
TH5	12	345.0	64.8	6.4
TH6	14	324.7	80.8	2.9
TH7	5	282.2	69.6	4.8
TH8	6	4.8	58.8	2.3
TH9	11	40.6	36.4	14.4
TH10	9	166.3	-24.8	3.3
Sample based Mean	N/A	275.3	77.1	46.2

Table 3.2 Calibrated radiocarbon dates from Trusty's Hill

Lab code	*Context*	*Feature*	*Species*	*Years BP*	*d¹³C (‰)*	*Calibrated 1 sigma*	*Calibrated 2 sigma*
SUERC-41590 (GU28020)	2007	Primary fill of rock-cut basin	*Corylus* (Waterlogged wood)	1300±30	-29.1‰	AD 668–767	AD 661–773
SUERC-41591 (GU28021)	4002	Backfill deposit	*Corylus* (Charcoal)	1465±30	-25.7‰	AD 574–632	AD 551–646
SUERC-41592 (GU28022)	4007	Dark soil deposit	*Corylus* (Charcoal)	1485±30	-25.1‰	AD 551–610	AD 536–646
SUERC-41596 (GU28023)	4008	Occupation deposit	*Corylus* (Charcoal)	1590±30	-25.4‰	AD 426–533	AD 411–543
SUERC-41597 (GU28024)	4016	Construction deposit	*Corylus* (Charcoal)	1510±30	-27.2‰	AD 539–600	AD 529–623
SUERC-41598 (GU28025)	5014	Dark soil deposit	*Corylus* (Charcoal)	1495±30	-27.0‰	AD 547–602	AD 533–643
SUERC-41599 (GU28026)	5017	Construction deposit	*Corylus* (Charcoal)	2345±30	-26.2‰	415–383 BC	513–378 BC
SUERC-41600 (GU28027)	5018	Rampart core	*Corylus* (Charcoal)	1485±30	-27.6‰	AD 551–610	AD 536–646
SUERC-41601 (GU28028)	5022	Post-hole fill	*Alnus* (Charcoal)	2350±30	-26.6‰	416–386 BC	515–381 BC

Radiocarbon dating and bayesian modelling

Derek Hamilton

All of the samples submitted for radiocarbon dating consisted of single-entity short-lived material (Ashmore 1999) and were submitted to the Scottish Universities Environmental Research Centre to be measured by Accelerator Mass Spectrometry (AMS).

The samples were pre-treated following Stenhouse and Baxter (1983), and combusted as described in Vandeputte *et al.* (1996) with the graphite targets prepared and measured following Xu *et al.* (2004). The SUERC laboratory maintains rigorous internal quality assurance procedures, and participation in international inter-comparisons (Scott 2003) indicate no laboratory offsets; thus validating the measurement precision quoted for the radiocarbon ages.

A Bayesian approach was adopted for the interpretation of the chronology (Buck *et al.* 1996). Although the simple calibrated dates in Table 3.2 are accurate estimates of the dates of the samples, it is the dates of the archaeological events represented by those samples, which are of interest. In the case of Trusty's Hill, it was the overall chronology of the use of the fortified summit area – when did it begin; when did it end; and for how long was it in use – that was under principle consideration, not necessarily the dates of any individual samples. The principal question the Bayesian analysis addressed was: can occupation of the summit during the early medieval period be refined to specific decades within the fifth to mid-seventh centuries AD? The dates for this activity can be estimated not only using the absolute dating information from the radiocarbon measurements on the samples, but also by using the stratigraphic relationships between samples.

Fortunately, methodology is now available which allows the combination of these different types of information explicitly, to produce realistic estimates of the dates of archaeological interest. It should be emphasised that the posterior density estimates produced by this modelling are not absolute. They are interpretative estimates, which can and will change as further data become available and as other researchers choose to model the existing data from different perspectives.

The technique used is a form of Markov Chain Monte Carlo sampling, and has been applied using the programme OxCal v4.1. Details of the algorithms employed by this programme are available from the on-line manual or in Bronk Ramsey (1995; 1998; 2001; 2009). The algorithm used in the model described below can be derived directly from the model structure shown in Figure 3.2.

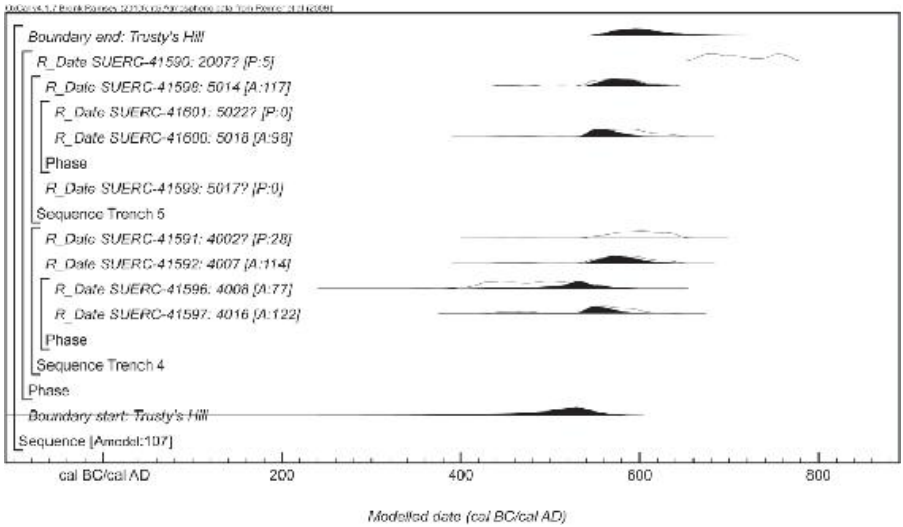


Fig. 3.2 Chronological model for Trusty's Hill. Each distribution represents the relative probability that an event occurred at some particular time. For each of the radiocarbon measurements two distributions have been plotted, one in outline, which is the result of simple radiocarbon calibration, and a solid one, which is based on the chronological model used. The distributions correspond to aspects of the model. For example, 'start: Trusty's Hill' is the estimated date that activity began on the summit of the site, based on the radiocarbon dating results. The large square 'brackets' along with the OxCal keywords define the overall model exactly

The radiocarbon results given in Table 3.2 are conventional radiocarbon ages (Stuiver & Polach 1977), quoted according to the international standard set at the Trondheim Convention (Stuiver & Kra 1986), and calibrated with the internationally agreed curve of Reimer *et al.* (2009) using OxCal v4.1 (Bronk Ramsey 1995; 1998; 2001; 2009). The date ranges in Table 3.2 have been calculated using the maximum intercept method (Stuiver & Reimer 1986). The probability distributions seen in Figures 3.2, 3.3 and 3.4 were obtained by the probability method (Stuiver & Reimer 1993).

Results

AMS radiocarbon dates were obtained from eight single-entities of short-lived charcoal and one single entity of short-lived waterlogged wood from a variety of excavated deposits on the summit and entranceway of the hillfort (Table 3.2). A sample of sooting from under the rim on the exterior of the E ware sherd (SF 114), recovered from the dark soil layer (4007) abutting the rampart core on the eastern side of the summit, was also submitted for radiocarbon dating to provide a date for the E ware vessel independently of the context. However, the sample taken, which represented the entirety of sooting

from under the exterior of the rim of the sherd, failed to provide sufficient carbon for an AMS measurement.

A calibrated radiocarbon date of AD 536–646 (SUERC-41592) was recovered from the dark soil deposit (4007) in Trench 4 that abutted the vitrified rampart along the east side of the summit of the fort. This was matched by a date of AD 533–643 (SUERC-41598) from the corresponding dark soil deposit (5014) in Trench 5 that abutted the rampart on the western side of the summit. Calibrated dates from beneath the summit rampart included AD 529–623 (SUERC-41597) from the east side (4016) and 513–378 BC (SUERC-41599) from the west side (5017). Another Iron Age date of 515–381 cal BC (SUERC-41601) was recovered from the base of a structural post-hole (5022) within the rampart at the west side though a lens of material (5018) from the core of the rampart above this yielded a calibrated date of AD 536–646 (SUERC-41600). One of the occupation deposits (4008) in the south-west corner of Trench 4 on the east side of the summit provided a calibrated radiocarbon date of AD 411–543 (SUERC-41596), while the backfill soil (4002) from Charles Thomas' excavation of Trench 4 yielded a calibrated date of AD 551–646 (SUERC-41591). A piece of hazel wood (SF 121) taken from the waterlogged primary fill of the rock-cut basin in Trench 2 at the opposite side of the entranceway to the Pictish carvings was radiocarbon dated to AD 661–773 (SUERC-41590).

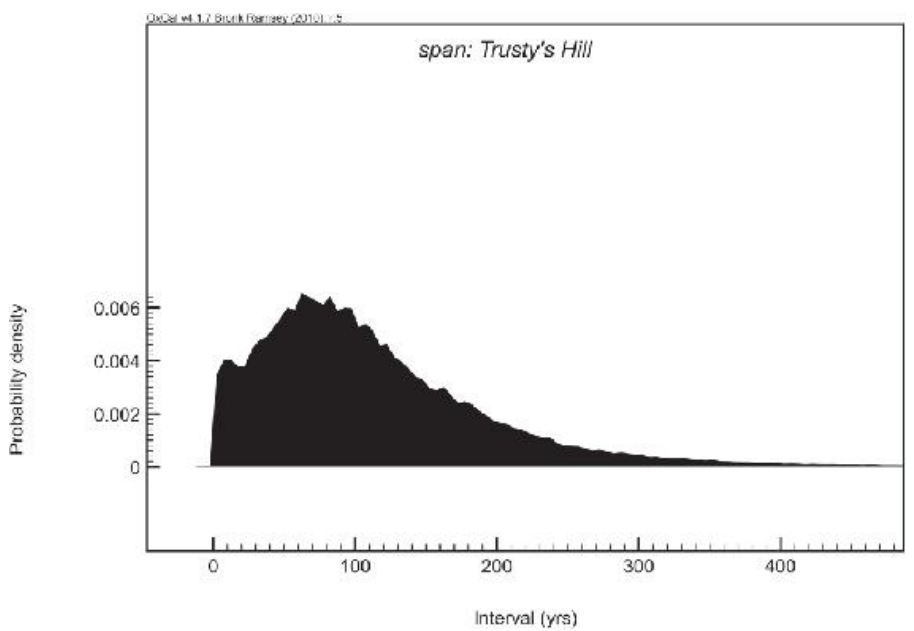


Fig. 3.3. Probability distribution for span: Trusty's Hill. The probability is derived from the modelling shown in Fig. 3.2

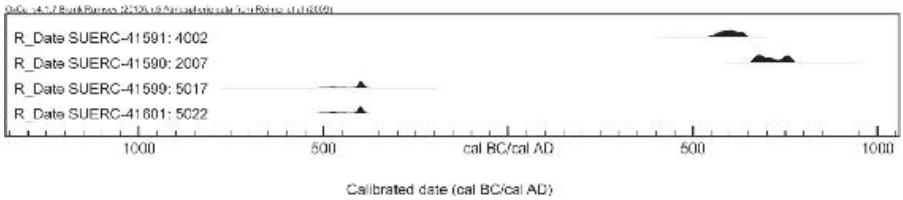


Fig. 3.4. Calibrated radiocarbon dates for results that have been excluded as some part of the chronological modelling of the site

The single result (SUERC-41590) from the primary fill of the rock-cut basin in Trench 2 was excluded from the Bayesian analysis because this feature was likely open for longer than the summit fort. One of the results (SUERC-41591) from Trench 4 on the east side of the summit, was also excluded from the Bayesian modelling because the material (4002) from which the single entity sample was drawn comprised the backfill from Thomas' excavations and so was not strictly *in situ.* Two of the results (SUERC-41599 and SUERC-41601) from samples recovered from Trench 5 on the west side of the summit were also excluded from the Bayesian modelling as these were substantially earlier than the mid-first millennium AD activity under analysis here and likely derived from residual material included in the deposit.

The model (Fig 3.2) estimates that the dated activity on the summit of Trusty's Hill began in *cal AD 375–580 (95% probability*; Fig 3.2), if not probably *cal AD 475–560 (68% probability).* The dated activity associated with the occupation of the summit ended between either *cal AD 545–710 (95% probability;* Fig 3.2) and *cal AD 560–630 (68% probability).* The total span of dated activity was between *1–295 years (95% probability;* Fig 3.3) and *1–140 years (68% probability).*

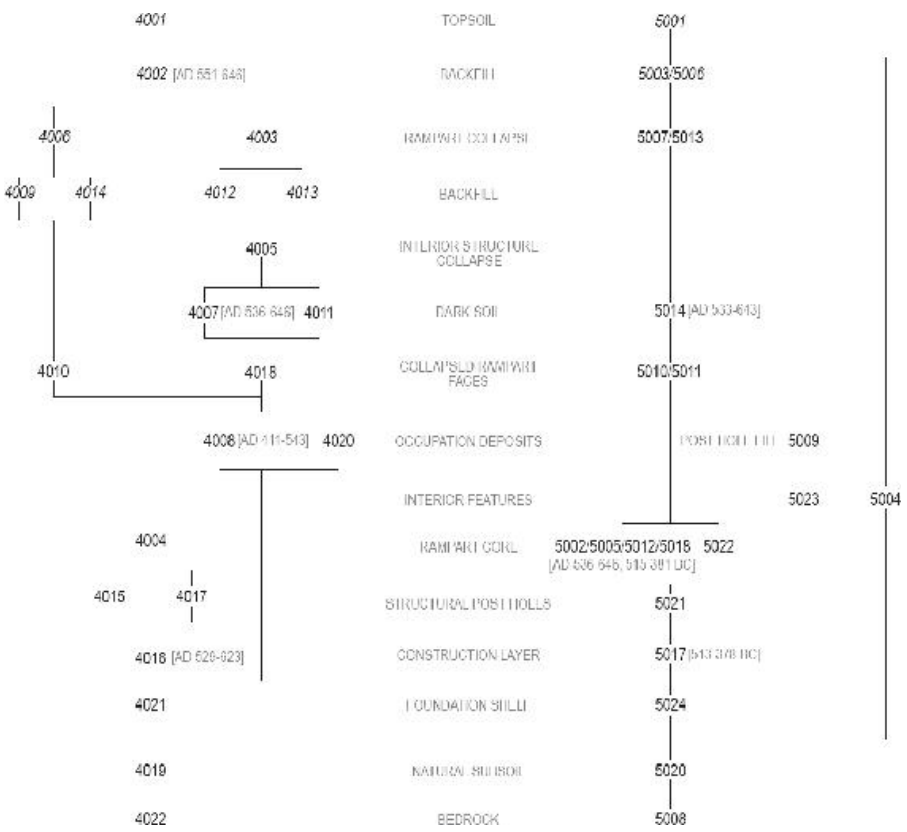


Fig. 3.5. Combined Harris matrices incorporating calibrated (2-sigma) radiocarbon dates for the stratified sequence of contexts in Trenches 4 and 5

Discussion

Derek Hamilton, Ronan Toolis and Chris Bowles

The simple calibrated dates in Table 3.2 indicate initial occupation of Trusty's Hill around 400 BC. However, it is unlikely that the timber-laced rampart enclosing the summit originates from this time, as an early sixth–early seventh century AD date was obtained from the construction layer beneath the rampart on the east side, and another early sixth– mid-seventh century AD date was taken from the vitrified rampart itself on the west side (Fig. 3.5). The likeliest explanation for the presence of Iron Age material, which was found solely within the foundation trench of the vitrified rampart on the west side, is that it is residual, probably having been swept up from a discrete part of the interior of the site and laid out as a bed of material for the timber frame and stone core of the rampart. The Iron Age occupation of Trusty's Hill appears to have been followed by a hiatus of almost a

millennium before the hill was re-occupied around the beginning of the sixth century AD and fortified with a newly constructed timber-laced rampart around its summit (Fig. 3.5). This rampart along with any structures across the summit was destroyed at some point between the middle of the sixth century and the middle of the seventh century. The single radiocarbon date taken from the primary fill of the rock-cut basin, that lies opposite the Pictish Carvings, demonstrates that the use of the rock-cut basin continued into the late seventh–late eighth century, long after the destruction of the fort. Given that no material from the summit yielded contemporary radiocarbon dates and that the gateway as well as the rampart enclosing the summit was also very likely destroyed before the middle of the seventh century, it is probable that, on the basis of the current evidence, this phase of activity was discretely concentrated to this feature alone.

The chronology of the occupation of the summit can be further refined by the Bayesian chronological model (Fig 3.2). This shows close agreement between the radiocarbon dates and the archaeological finds evidence (see Chapter 4) providing robust estimates for the start, end, and overall duration of activity associated with the dated and modelled contexts. Although there were nine radiocarbon dates available from the site as a whole, only a subset of five dates could be used in the Bayesian model. So, while the modelling provides a robust estimate, the low number of samples produced date estimates that are less precise than possible (Steier & Rom 2000). The 68% probability ranges provided by the modelling are likely to provide more realistic estimates for the occurrence of the modelled events. It is therefore possible to state from the radiocarbon dating evidence alone that the fortified summit of Trusty's Hill was occupied between *cal AD 475–560* and *cal AD 560–630*.

This date range for the fortification of the summit can be refined perhaps to the late sixth–early seventh century by the bulk of datable artefacts recovered from the summit deposits, such as the E-Ware pottery sherd and the decorated metalwork (see Chapter 4). A compressed time span around AD 600 for the hilltop citadel is supported by the corresponding stratigraphic sequences of near identical deposits evident at both the eastern and western sides of the summit (Fig. 3.5). These indicate essentially one phase of occupation during the early medieval period with little sign of the accumulation of deposits or the repair and replacement of features that one might expect from a prolonged occupation of the summit, at least during the lifespan of the timber-laced rampart. However, the deposition of occupation material in the foundation trench for the rampart indicates

that the interior of the summit was scoured prior to the construction of the timber-laced rampart. This may have removed not only earlier Iron Age occupation deposits from the interior of the summit, but also occupation deposits from earlier in the sixth century AD, as apparent from the radiocarbon dates extracted from the construction layer and rampart core on the west side and the construction layer on the east side of the summit. It therefore seems that at some point during the latter part of the early medieval phase of occupation, the timber-laced rampart was constructed around the summit of the hill. It is not possible to demonstrate stratigraphically whether this was prior to or subsequent to some of the occupation deposits encountered (Fig 3.5). However, the destruction of the rampart at some point no later than the early seventh century certainly appears to have signalled the end of the early medieval occupation of the summit of Trusty's Hill.

Chapter 4

The artefacts

Ceramics

Ewan Campbell

Imported pottery

Early medieval imported pottery is represented by the rim of a small E ware jar (SF 114; Fig. 4.1) recovered from Trench 4 dark soil deposit (4007) on the eastern side of the summit. The small rim diameter shows that this jar belongs to Campbell's Form E1c (Campbell 2007, fig. 21). Rim forms of E ware jars are very variable, but the Trusty's Hill vessel is very similar to examples from the early excavations at Dunadd *(ibid.,* fig. 36, E60) and Loch Glashan (Crone & Campbell 2005, 2, fig. 32). The latter vessel was directly dated from sooting residues to cal AD 420–640 (ibid., 113, table 3). An attempt to obtain a similar date from sooting residues on the E ware sherd from Trusty's Hill failed due to insufficient material. But the context provided a date of cal AD 536–646 (SUERC-41592), which ties in with similar dates obtained for E ware from other sites that show a range of later sixth–early seventh centuries for its main period of importation (Campbell 2007, 46). Although the sooting on the vessel suggests use in a domestic sphere, evidence from other sites suggests that this type of usage is secondary, and that the primary function was as containers for the importation of exotic materials such as spices, dyes, and foodstuffs. The chemical analysis of residues from the Trusty's Hill sherd (SF 114) suggested animal fats were present, particularly on the inner surfaces (see Stern below). Again, this suggests secondary reuse of some sort, though the vessel seems too small to have been used as a cooking pot. On other sites, as at Trusty's Hill, E ware is often found associated with metalworking deposits. While this may be due to secondary dumping of midden material in 'dirty' areas of sites, there are instances where vessels appear to have been re-used in industrial processes (Crone & Campbell 2005, 57). The close similarity of the E

ware rim (SF 114) form from Trusty's Hill to vessels from Dunadd and Loch Glashan in Argyll strongly suggest that these sites were in occupation at the same time and linked through the same economic trading system.

Fig. 4.1. Samian and E ware pottery rim sherds from Trusty's Hill

The significance of E ware extends well beyond its importance in the chronology of sites which often are otherwise difficult to date. The pottery was manufactured in western France and widely distributed in Atlantic Britain and Ireland (Fig. 4.2). In Southern Scotland, the major sites are Whithorn (Campbell 1997) and Mote of Mark (Laing & Longley 2006). Concentrations of E ware are found on a series of high status sites, many of which have documented royal connections. It has been suggested that these royal sites represent primary importation centres, in direct maritime contact with Merovingian Gaul, and that the pottery (along with other imported goods) were redistributed from these sites by gift exchange to client sites (Campbell 2007). Although Trusty's Hill has only produced one E ware vessel so far, the

excavations have been restricted in scale, and the site shares many characteristics of these royal re-distributive centres such as Dunadd (Campbell 1996, 85, Table 4.1).

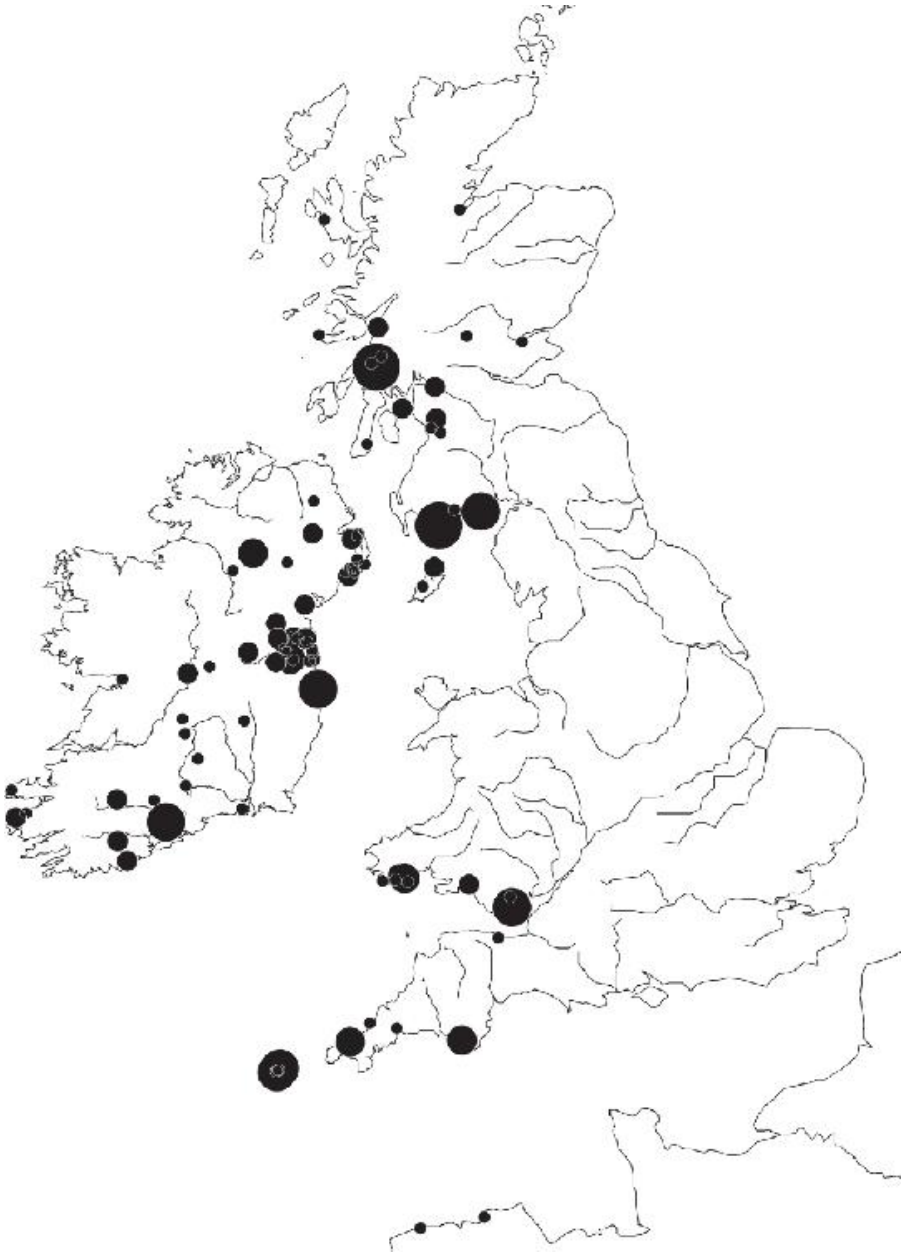


Fig. 4.2. Distribution of E ware (size of symbol proportional to number of vessels)

SF 114 Rim sherd of small jar, rim everted, rounded with exterior lip and internal lid-seat (Fig. 4.3). The form is E1c. Sooted on exterior, covering usage spall on rim, not abraded. Fabric medium hard, heavily gritted with sub-angular clear and white

quartz with rounded iron ore, poorly sorted, up to 5mm. Colour grey/buff/pink/buff. Size 85 × 35 mm, T 5 mm, Rim *diam.* 13 cm. Context 4007, Trench 4.

Table 4.1 Data for Pb isotope composition from lead bar (SF 186)

sample	206Pb/204Pb	SD % 1σ	207Pb/204Pb	SD % 1σ	208Pb/204Pb	SD % 1σ	207Pb/206Pb	SD % 1σ	208Pb/206Pb	SD % 1σ
5309_189_4011	18.3043	0.003	15.6188	0.0006	38.3076	0.003	0.8533	0.0011	2.09280	0.0011

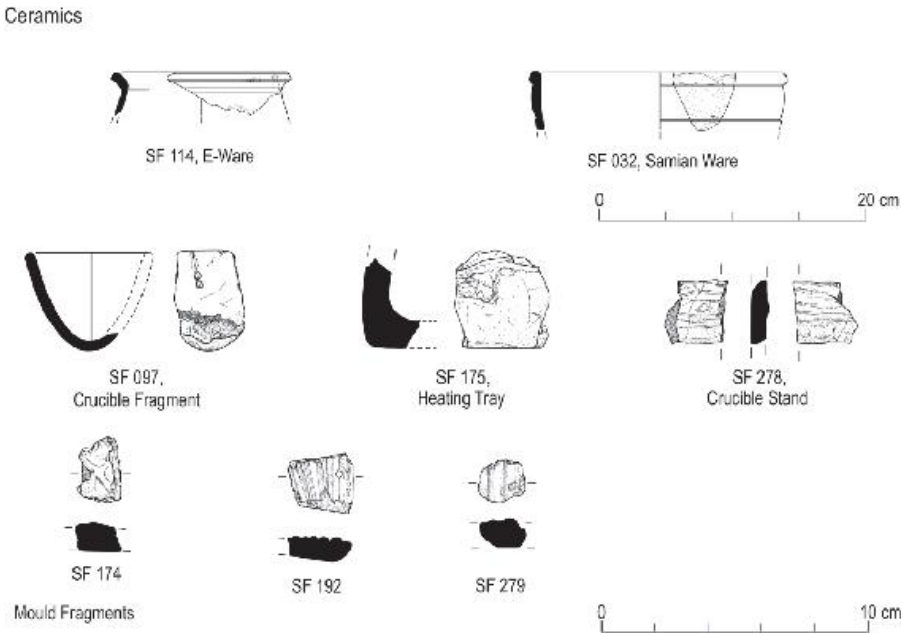


Fig. 4.3. Ceramics from Trusty's Hill

Roman pottery

The sherd of samian pottery (SF 032) from Trench 5 dark soil deposit (5014) on the western side of the summit is easily identifiable as coming from the rim of a bowl of Form Dragendorff 37 (Fig. 4.1), one of the commonest forms found in Britain from the late first–early third centuries AD. The lower parts of these bowls have relief decoration which would enable a closer dating, but this part is missing on the Trusty's Hill sherd. The only clue to its date is that the plain band below the rim is relatively wide, suggesting it is not early in the series, and is probably of second century AD date. The fabric suggests a Central Gaulish, Lezoux place of manufacture. Such pottery was abundantly imported to Roman Britain and is found extensively on Roman urban and military sites. However, it is also found more widely distributed on native sites outwith Roman contexts in Scotland, where it is one of the commonest types of Roman artefact (Campbell

2011). In these native Iron Age contexts, samian pottery is found widely in eastern Scotland, with fewer sites in the west, and most of these are in coastal locations (ibid., fig. 6.12). Around a dozen sites along the northern shore of the Solway Firth have produced small numbers of samian sherds, and where these can be identified, most of them are of Form Dragendorff 37 as is the Trusty's Hill sherd. Most sites have only one sherd, but a few such as Whithorn, Torrs cave and High Torrs cairn have a handful.

While on many sites this samian pottery can be shown to be found in Roman Iron Age contexts, on others the context is early medieval. This later use of the material can be seen at sites such as Dumbarton Castle (Alcock & Alcock 1990, 115; Alcock *et al.* 1992) and the Mote of Mark (Laing & Longley 2006, 125), and probably represents a deliberate useage of material collected from abandoned Roman sites, rather than residual material from Roman period occupation of the site. There is however, some debate around this issue. For example, the Whithorn material is seen as evidence of an otherwise invisible Roman period occupation of the site (Hill 1997, 27 & 293). It is noticeable that a number of important early medieval hillfort sites with royal associations (Dunadd, Dumbarton, Mote of Mark, Dinas Powys) have produced similar samian sherds. In the case of the Mote of Mark, the sherd is rubbed down in a similar manner to that at Trusty's Hill, which is rubbed down on one edge. This is also a feature of the large collection of samian sherds from Traprain Law (Campbell 2011, 337). All these sites are important metalworking centres, and it has been suggested that the ground down samian has been used as jeweller's rouge for polishing metal artefacts (Campbell 1991, 59).

SF 032 Rim sherd of samian bowl (Form Dragendorff 37). Beaded rim with wide plain band above a band of ovolo decoration (Fig. 4.3). The exterior of the rim is spalled, and the sherd is badly abraded. One edge has been rubbed smooth with a convex profile. Size 48 x 43 mm, T 7 mm. Rim *diam. c.* 20 cm. Context 5014, Trench 5.

Metalworking ceramics

There was a variety of evidence for fine metalworking recovered from Trusty's Hill including crucibles, heating trays, moulds, furnace lining and a possible crucible stand (Figs 4.3–4.5). This evidence shows that the site was producing decorative jewellery in a workshop similar to those at the well-known contemporary sites of Dunadd in Argyll (Lane & Campbell 2000), the Brough of Birsay in Orkney (Curle 1982), Clatchard Craig in Fife (Close-Brooks 1986) and the Mote of Mark in Galloway (Laing & Longley 2006). These sites, and a newly discovered

site at Rhynie (Noble & Gondek 2011), lie in different cultural areas of early medieval Scotland (Gaelic, Pictish and British) and allow us to compare metalworking practices.

MOULDS

The three mould fragments, from the dark soil (4007) on the east side of the summit at Trusty's Hill, are unusual in that they all preserve parts of the objects being cast (Fig. 4.4). Two appear to be from casting multiple pins (SF 192 & 279) laid out in radiating formation similar to those from the Mote of Mark (Laing & Longley 2006, 62, fig. 25), but the lack of pinheads means these are undiagnostic. The third mould (SF 174) unfortunately is also undiagnostic, but does have a cross-shaped positive impression of a keying mark, similar to others found in the central portion of brooch moulds. An exactly similar keying device is seen on a recently found mould for a Type H brooch from Rhynie (Noble *et al.* 2013, 1142) and a brooch mould from Clatchard Craig (Close-Brooks 1986, illus. 23, nos 51–2), but is different from the devices used on brooch moulds at Dunadd and Mote of Mark. It has been suggested that these differences are distinctive of individual metalworkers, rather than being culturally diagnostic (Lane & Campbell 2000, 203; Laing & Longley 2006, 35). From comparison with these other examples, the third mould (SF 174) is probably from the production of a brooch, and the traces seen at one edge may be part of a terminal. The mould fragments make it clear that Trusty's Hill was a major metalworking site. The production of fine metalwork is one of the key characteristics of high status sites of the period and it has been suggested that the brooches produced played a central role in cementing client/lord relationships (Neike 1993).

Fig. 4.4. Mould fragments from Trusty's Hill

SF 174 Fragment from centre of upper? valve of a mould, with cross in relief (Fig. 4.3). One edge has part of the object being cast, but too little survives to be diagnostic. 24 × 16 × 10 mm. Context 4007, Trench 4.

SF 192 Fragment of upper valve of a mould with edge and impression of four radiating round-sectioned channels (Fig. 4.3). One positive triangular key mark. Fabric fine, cream to buff. 25 × 24 × 8 mm. Context 4007, Trench 4.

Fig. 4.5. Crucible fragments from Trusty's Hill

SF 279 Fragment of lower valve of a mould with edge and impression of two rectangular-sectioned channels 3mm wide (Fig. 4.3). One negative keying mark. Fabric cream to grey. 17 × 16 × 10 mm. Context 4007, Trench 4.

CRUCIBLES AND OTHER METALWORKING CERAMICS

The crucible fragments mainly belong to small to medium-sized triangular crucibles (Fig. 4.3 & 4.5), a long-lasting type found from the Iron Age to early medieval periods. In this, the assemblage is similar to that from the Mote of Mark, but differs from that at Dunadd and the Brough of Birsay, where there are many handled and lidded forms. As with the keying patterns on the moulds, these differences in metalworking practices do not seem to be related to cultural or ethnic divisions. XRF analysis shows that the metals being cast were mainly leaded bronzes, though one (SF 106) also showed silver (see Cruickshanks & Hunter below). The relative lack of zinc is

characteristic of Atlantic sites where there was little re-use of Roman brasses. At Dunadd, silver was mainly found in lidded forms of crucible, but this was not consistent (Lane & Campbell 2000, 206).

Other metalworking ceramics were represented by a 'dog-bowl' shape (SF 175; Fig. 4.3), classified as Type B3 at Dunadd (Lane & Campbell 2000, 135, illus. 4.40). This ceramic was lower-fired than the crucibles, with a band of external vitrification suggesting the former presence of a lid (*cf.* Laing & Longley 2006, fig. 16). XRF analysis showed gold and silver as well as copper (see Cruickshanks & Hunter below). It has been suggested that this type of item was used in the refining of precious metals, or 'parting' (Bayley 1991). One unique item is a crucible stand (SF 278; Fig. 4.3) which may have been used within a furnace. Items of similar function are known from elsewhere, such as Mote of Mark (Laing & Longley 2006, 28, fig. 16, 1274).

Substantial portions of individual crucibles were found in the dark soil deposit (4007) on the east side of the summit and construction layer (5017) and a lens of the rampart core (5018) on the west side of the summit, suggesting metalworking took place nearby these locations. The presence of gold and silver in metalworking is characteristic of royal sites in the Atlantic West (Campbell & Heald 2007), reinforcing the picture of Trusty's Hill as a high status site. The quantities of non-ferrous metalworking debris at Trusty's Hill are not large compared to sites such as Dunadd or the Mote of Mark, but both sites have shown that this type of material is concentrated in small areas of sites (Laing & Longley 2006, 81, fig. 37), so the focus of metalworking may have been missed by the limited trenches excavated at Trusty's Hill.

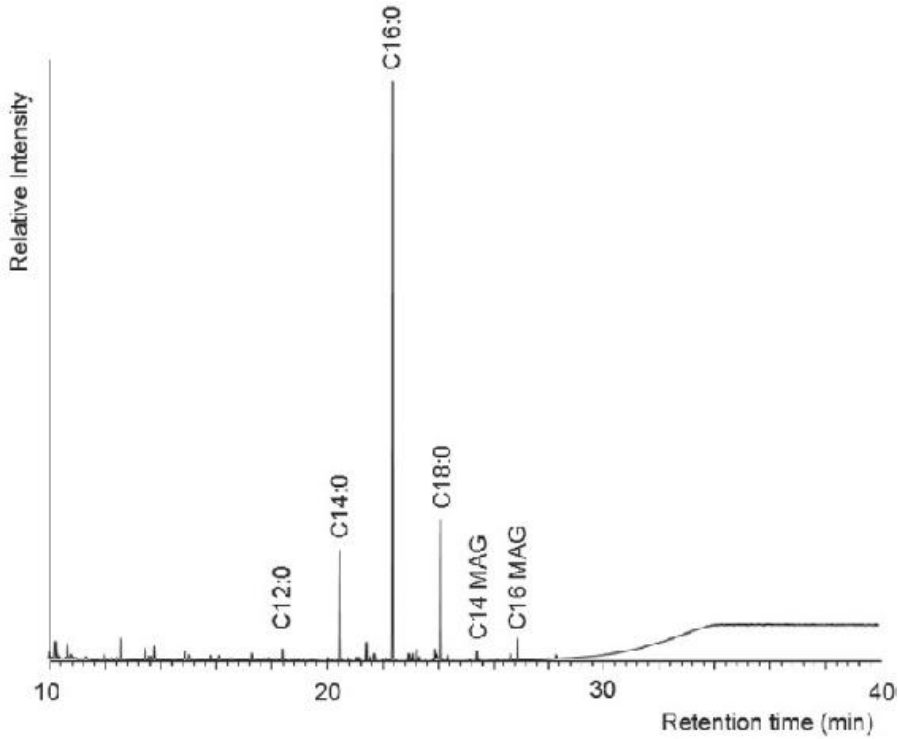


Fig. 4.6. Total ion chromatogram of the extract of the external surface

SF 037 Small thick-walled sherd vitrified, with thick deep red enamel internally. 30 × 22 mm, T 8 mm. Context 4002, Trench 4.

SF 087 Rim of small crucible with internal red enamel. Probably same vessel as SF 162. Context 4007, Trench 4.

SF 097 Two joining sherds giving complete profile of medium-sized crucible (Fig. 4.3). Exterior base and whole interior vitrified with glassy green deposits. Height 42 mm, T 4 mm. Estimated *diam. c.* 5 cm. Exterior vitrified, interior white deposits. Context 5018, Trench 5.

SF 106 Base of small triangular crucible, exterior vitrified, interior black deposits. 26 × 20 mm, T 5 mm. Context 4007, Trench 4.

SF 162 Rim of small thin-walled crucible, with red vitrification covering interior and exterior. 26 × 29 mm, T 4 mm. Context 4007, Trench 4.

SF 169 Rim of small triangular crucible, external and internal vitrification. 22 × 22 mm, T 5 mm. Context 4011, Trench 4.

SF 175 Base and wall of thick 'dog-bowl' heating tray with inturned wall (Fig. 4.3). Band of vitrification on exterior suggesting possible lid. No internal deposits visible. Fabric soft, with white inclusions, buff/pink. Basal diameter *c.* 5 cm. Height 35 mm, T 12 mm. Context 4007, Trench 4.

SF 201 Tiny crucible fragment. Context 4010, Trench 4.

SF 202 Tiny crucible? fragments. Context 5018, Trench 5.

SF 203 Five fragments of a medium-sized triangular crucible with pouring lip. Same vessel as SF 097. Vitrification inside and out. Height c. 40 mm, T 2–4 mm. Context 5017, Trench 5.

SF 278 Possible crucible stand (Fig. 4.3). Section of cylindrical ceramic ring with vitrification on all surfaces. Height 23 mm, T 6 mm. Context 4007, Trench 4.

Analysis of E-ware sherd for organic residues by Gas Chromatography-Mass Spectrometry

Ben Stern

A portion of the interior and exterior surfaces of E Ware sherd (SF 114) were separately removed by scraping with a metal spatula. The resultant sub-samples were extracted with ~2 ml dichloromethane:methanol 2:1, v/v, with ultrasonication for five minutes followed by centrifugation (5 min 2000 rpm). Excess *N,O*-bis(trimethylsilyl)trifluoroacetamide with 1% trimethylchlorosilane was added to derivatise the sample which was warmed at 70°C for one hour. Excess derivatising agent was removed under a stream of nitrogen. The samples were diluted in DCM for analysis by combined gas chromatography-mass spectrometry.

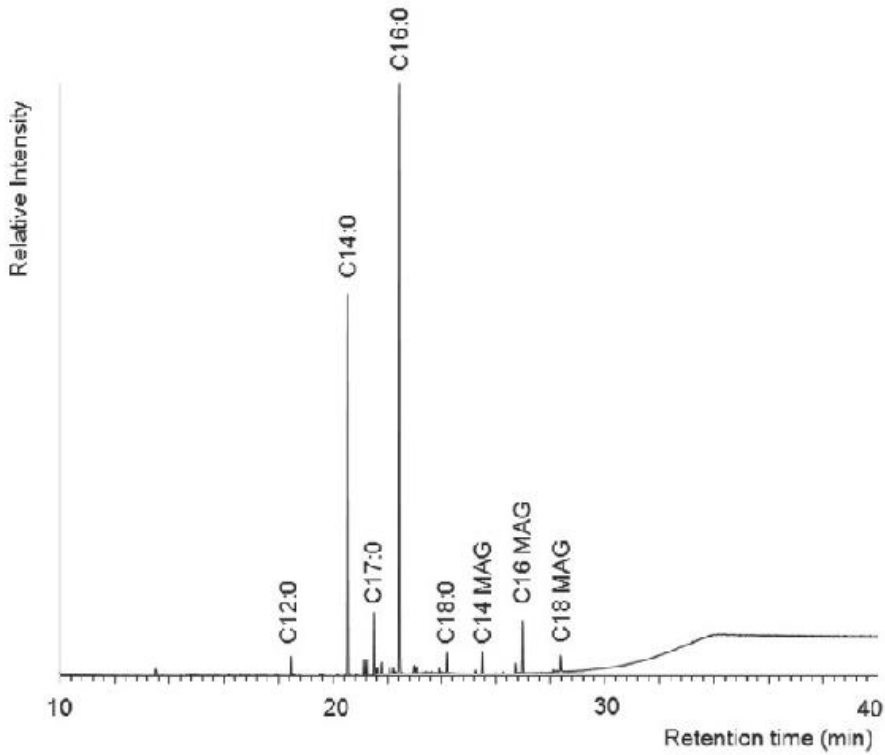


Fig. 4.7. Total ion chromatogram of the extract of the internal surface

Analysis was carried out by combined gas chromatography-mass spectrometry using an Agilent 7890A Series GC connected to an 5975C Inert XL mass selective detector. The splitless injector and interface were maintained at 300°C and 340°C respectively. Helium was the carrier gas at constant flow of 1.4 mL/ min. The temperature of the oven was programmed from 50°C (2 min) to 350°C (10 min) at 10°C/min. The GC was fitted with a 15 m × 0.25 mm, 0.25 μm film thickness HP-5MS 5% Phenyl Methyl Siloxane phase fused silica column (Agilent J&W). This analytical column was connected via a Quickswap with a 0.17 m 100 μm ID deactivated capillary which was inserted into the ion source where electron impact (EI) spectra were obtained at 70 eV with full scan from *m/z* 50 to 800.

The results are presented as chromatograms of the *N,O*-bis(trimethylsilyl)trifluoroacetamide derivatized solvent extracts (Figs 4.6 and 4.7). These show each separated component of the solvent extract as discrete peaks, the area under each peak being representative of the abundance.

Fatty acids and monoacylglycerides with 12–18 carbons were recovered from the interior and exterior surfaces of the E Ware vessel sherd (SF 114). These lipid residues were degraded, as indicated by

the absence of the original triacylyglycerols and the presence of these breakdown products. In addition, there were odd carbon numbered fatty acids and their branched-chain isomers (not shown on the figures). These are likely to originate from bacterial degradation of the original sample.

The distributions of the fatty acids varied between the exterior and interior. Notably, the C14 fatty acid was in higher abundance in the interior of the vessel. Although not quantified, the interior surface yielded larger quantities of fatty acids (as would be expected with vessel use). The fatty acids and monoacylglycerides are indicative of a plant oil or animal fat. The relative high abundances of C14 indicates that this was more likely to originate from an animal fat, although there was no further molecular evidence for this.

Metalwork

The copper-alloy mount

Alice Blackwell

A circular copper-alloy mount (SF 023) was recovered from the backfill (4002) of Trench 4. This mount is decorated on the front with chip-carved Germanic Style II birds' heads arranged around a central boss, with organic remains preserved on the reverse in the region of three copper-alloy attachment lugs (Fig. 4.8).

In places the mount is fairly corroded, but despite this the decoration remains easily legible (Fig. 4.9). The front surface of the mount has a flat, undecorated outer border, around 4 mm in width. Immediately within this are three pairs of simple Style II birds' heads in profile. The heads, all of the same design, consist of a single eye and a long, thin, curved beak, the lower edge of which is marked by rough hatching. The beaks of opposed pairs tuck neatly one above the other, following the curvature of the mount. Within this register of decoration is a chip-carved ridge surrounding a central, integral boss. The boss has a circular and slightly domed recess in the centre; this appears to be a deliberate feature rather than an empty setting. No traces of gilding are visible, but this is due to corrosion, as X-ray fluorescence analysis detected gold and silver on the front (see Cruickshanks & Hunter below); other similar mounts are usually gilded and some feature both gilding and silvering/tinning.

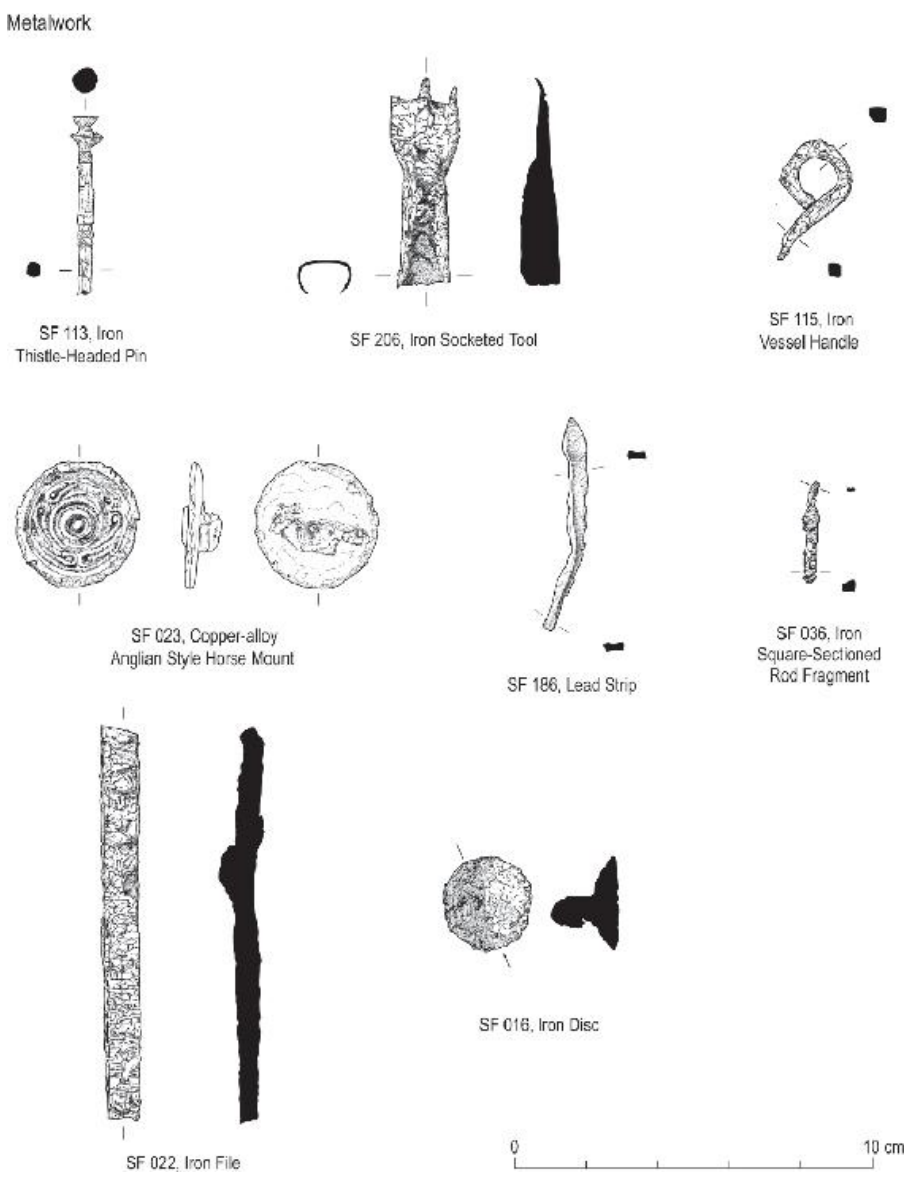


Fig. 4.8. Metalwork from Trusty's Hill

On the reverse of the mount are three integral copper-alloy attachment lugs, one placed in the centre, with another on either side near the edge of the mount (Fig. 4.8). The central lug is slightly larger in diameter (4 mm) than the two either side of it (both around 3 mm in diameter); its surviving length is also greater (*c.* 5.5 mm high, versus 2.5 mm and 4 mm). Preserved around the lugs is a mass of material composed of decayed organic remains; little structure is visible within this mass suggesting it is more likely to be leather than wood. Two discrete areas of metal corrosion survive on the exposed

surface of the organic remains and appear to result from separate plates or washers attached to the lugs. Around the vicinity of the central lug the remains suggest an iron plate or washer, while around the better preserved of the two outer lugs is the remains of a copper-alloy plate. Although difficult to be certain, it seems that two layers of leather remains are preserved around the central lug only.

The mount is probably best described as Anglo-Saxon, although the nature of Insular art during the early medieval period and in particular the incorporation of chip-carved Germanic Style II motifs into metalwork made in Scotland makes identifying the place of manufacture difficult. Chip-carved style mounts decorated with Style II interlace were, for example, being made at the Mote of Mark in Dumfries and Galloway under some degree of Anglo-Saxon influence (Laing & Longley 2006, 148–51).

This object bears a superficial similarity to Anglo-Saxon cast saucer brooches (Dickinson 1993), but it can nonetheless be confidently identified as a mount. Surviving remains on the reverse of the object are clearly not part of a brooch fastening mechanism – these are of a consistent form among saucer brooches and consist of a pin and loop that, even when missing or damaged, are identifiable by their positions at either edge of the back. Instead the preserved remains on the back of the mount demonstrate it was likely to have been attached to an organic object, probably made of leather, by three lugs. In addition, instead of the characteristic near-vertical edge that forms the lip of the 'saucer' on these brooches, the Trusty's Hill object has a flat border, around 4 mm in diameter.

No exact parallel for the design on the mount has yet been identified although several relevant objects can be cited. Several chip-carved circular mounts of a similar diameter to the Trusty's Hill example have been recorded by the Portable Antiquities Scheme (PAS) from England. PAS NMS-36DB44 (incomplete, *diam.* 25 mm), which features two Style II chip-carved eagle heads, was suggested to be an applied stud from a great square-headed-brooch but images of the reverse suggest that, although now missing, three points of attachment were originally present, paralleling the arrangement on the Trusty's Hill mount. PAS BUC-24D605 *(diam.* 37 mm) has five integral rivets in a cruciform arrangement on the reverse. The front is decorated with a complex frieze of Style II interlocking creatures that run around the mount and, like the Trusty's Hill example, it has a central copper-alloy annular-shaped boss. PAS BH-5D35E5 (incomplete, estimated *diam.* 35 mm) has a single, centrally-placed surviving integral lug on the reverse, and a frieze of Style II interlocking creatures around a central,

domed boss. Two of these mounts, PAS BUC-24D605 and PAS BH-5D35E5, feature both gilding and silvering or tinning (not analysed). In terms of decoration, the two Style II mounts provide the closest parallels and are dated to the late sixth to early seventh century AD on stylistic grounds; a similar date can be suggested for the Trusty's Hill mount.

Fig. 4.9. Copper-alloy horse mount from Trusty's Hill

Flat, circular copper-alloy, chip-carved mounts of varying sizes have tended to be grouped together under the identification 'harness mounts'. The intact remains of a horse harness from Sutton Hoo Mound 17 (Evans 2005, 221–41, figs 109–12) demonstrate that several sizes (and shapes) of mounts could indeed be used in this way and that they could be attached using various arrangements of rivets to suit the number and orientation of straps to be joined. At Sutton Hoo, larger circular mounts *(diam.* 60 mm, fittings 25a and 25c, figs

111 & 112) joined pairs of bridle straps (from the browband to headband, and from the noseband to headband) using five rivets arranged in a cruciform shape. Smaller, more comparablysized mounts (fitting 21a, figs 109–10) were attached to the iron snaffle bit but the arrangement of rivets was obscured. Although difficult to interpret with certainty, the remains on the reverse of the Trusty's Hill mount suggest it may have been attached to a primary strap by all three lugs, with a second, less substantial strap attached via the central lug only.

Fig. 4.10. Thistle-headed iron pin from Trusty's Hill

SF 023 Circular copper-alloy mount, possibly from a horse harness (Fig. 4.9); originally gilt and silvered. Decorated with chip-carved Germanic Style II birds' heads arranged around a central boss, with organic remains and metal washers or plates preserved on the reverse in the region of three copper-alloy lugs. Diameter

34–6 mm, thickness *c.* 3.5 mm. Context 4002, Trench 4.

The ironwork

Gemma Cruickshanks and Fraser Hunter

Trusty's Hill produced a small but impressive assemblage of six iron objects (Fig. 4.8). These comprised, from the east side of the summit, a decorative thistle-headed pin (SF 113) from dark soil deposit (4007), a vessel handle fragment (SF 115) from dark soil deposit (4011), a dish-headed mount (SF 016) from the backfilled rampart collapse (4003) and possible blacksmithing debris (SF 036) from backfill (4002) from Thomas' 1960 trench. From the west side of the summit was recovered a metalworking file (SF 022) from the top lens (5002) of the rampart core and a toothed socketed tool (SF 026) from rampart collapse (5007). The pin and toothed tool are both early medieval types. The other objects are not chronologically distinct but are in keeping with this date. The high quality of the ironwork assemblage, especially given the small scale of excavations, is a good indication of the importance of the site.

Fig. 4.11. Thistle-headed iron pin from Trusty's Hill

The most impressive iron object is the finely crafted thistle-headed pin (SF 113; Figs 4.10 and 4.11). Decorated iron pins are rare, probably due to the difficulty in decorating iron compared to copper alloy or bone/antler, which were easier to either cast or carve into intricate shapes. Hammering this small object into such a fine shape, incising the decoration and inlaying the copper alloy required an immense amount of skill as a metalworker and the owner of such an object is likely to have been of a high status. Thistle-headed pins can be paralleled in bone from Broch of Burrian (MacGregor 1974, 72, fig. 5, 24) and in a mould fragment from the Mote of Mark (Laing & Longley 2006, 61, fig. 24). Decorative bands are found on early medieval pin shanks of varying forms *(e.g.* see Stevenson 1955, 286, fig. A). Though the form of head, swollen shank and decorative bands

of the Trusty's Hill pin can all be paralleled in the early medieval period, it is the rare choice of material, iron, which makes it particularly special. The only comparably decorated iron pin from Scotland known to the authors is a drum-headed pin from Howe in Orkney, which has copper alloy inlays on the head and incised decorative bands with inlays around the swollen shank (Ballin Smith 1994, 217–8, fig. 130). This form of pin has traditionally been dated to no earlier than the seventh century AD (Foster 1990, 151; Stevenson 1955, 286, fig. A, 11) though the Howe pin is from a context dating to between the fourth and seventh centuries AD, suggesting a longer currency.

The two tools (SF 026 & SF 022) reveal some of the craft activities which were taking place at the site. The function of triple-toothed socketed tools has been reviewed and discussed elsewhere *(e.g.* see Hunter forthcoming a; Laing 1975, 296; Nicholson 1997a, 425) and remains enigmatic, although it seems likely they were used in textile manufacturing or leather working. The type has secure early medieval parallels throughout western Britain and is therefore in keeping with the site's date and location. Local parallels include a group of seven from Whithorn (Nicholson 1997a, 425). The file was a metalworker's tool, differentiated from files for organic materials by the fineness of the teeth (Manning 1985, 11). This complements other evidence for metalworking from the site, including the metalworking ceramic debris (see Campbell above), lead ingot (see Cruickshanks & Hunter below) and iron bar fragment (SF 036), which is likely to be blacksmithing debris. Metalworking was also a prominent activity on the contemporary local hillfort at the Mote of Mark (Laing & Longley 2006, 168).

The two fittings, the dish-headed mount (SF 016) and vessel handle (SF 115), were once attached to organic materials, probably leather and wood respectively. The dish-headed mount is unusual and no parallels have been located, but the vessel handle is a commonly found, everyday item with a long chronological span from the Iron Age onwards and may have been attached to a metal or organic vessel.

SF 016 Dish-headed iron mount (Fig. 4.8). Short, roundsectioned shank with blunt tip expands into dished head. This is likely to have been a decorative mount on a leather or wooden object. L 7 mm; head D 25 mm, T 3 mm; Shank L 12 mm, T 6.5 mm. Context 4003, Trench 4.

SF 022 Iron File (Fig. 4.8). The rectangular-sectioned bar swells slightly in the middle. Both ends are broken. Fine teeth can be seen on one side with traces on the edges too. They were probably on all sides but are now mostly obscured by

corrosion. L 110 mm, W 10.5 mm, T 7 mm. Context 5002, Trench 5.

SF 026 Triple-toothed, socketed iron tool (Fig. 4.8). The round open socket leads into a flat, expanding head with three pointed teeth (one is broken). The middle tooth is longer (5.5 mm) than the tooth on the edge (4.5 mm). L 57.5 mm; head W 19 mm, T 3 mm; socket 15 × 10 mm. Context 5007, Trench 5.

SF 036 Square-sectioned iron rod fragment (Fig. 4.8). Tapers to one end which is twisted and broken. The other end is blunt. The twisted end suggests this could be blacksmithing debris, the smith having twisted the rod whilst the metal was hot and soft to separate it. L 28 mm, T 2–3 mm. Context 4002, Trench 4.

Fig. 4.12. Lead bar from Trusty's Hill

SF 113 Thistle-headed iron pin (Fig. 4.8). Two bands of incised decoration encircle the swollen round-sectioned shank. The tip is missing. The ornamental incised bands comprise diagonal lines bounded by a horizontal line on each side. The X-ray shows there were traces of copper alloy inlay within the incised decoration (Fig. 4.10). There is also a hint of milled bands around the head, though these are mostly obscured by corrosion (Fig. 4.11). L 49 mm; shank D 3–5 mm; head L 9 mm, D 9 mm. Context 4007, Trench 4.

SF 115 Vessel handle (Fig. 4.8). Square-sectioned iron bar bent to form a loop at one end; broken at other. This looped terminal is probably a vessel handle rather than a fitting due to the curve of the bar. L 35 mm; rod T 6 mm; loop internal diameter 11.5 mm. Context 4011, Trench 4.

The lead

Gemma Cruickshanks and Fraser Hunter

A single lead object (SF 186; Fig. 4.12) was recovered from the dark soil deposit (4011) on the east side of the summit of Trusty's Hill. Some hammer-marks are visible on the surface from shaping it. This was probably an ingot of raw material for use in leadworking activity. Lead can be used for a variety of purposes, such as weights, repairs or solder and was commonly used in the early medieval period such as at Dunadd in Argyll, and the Mote of Mark and Whithorn in Dumfries and Galloway (Lane & Campbell 2000, 159; Laing & Longley 2006, 116; Nicholson 1997b, 389).

SF 186 Wavy, rectangular-sectioned lead bar (Fig. 4.8 and 4.12). One end is broken; the other is squared. L 59 mm, W 5 mm, T 3 mm. Context 4011, Trench 4.

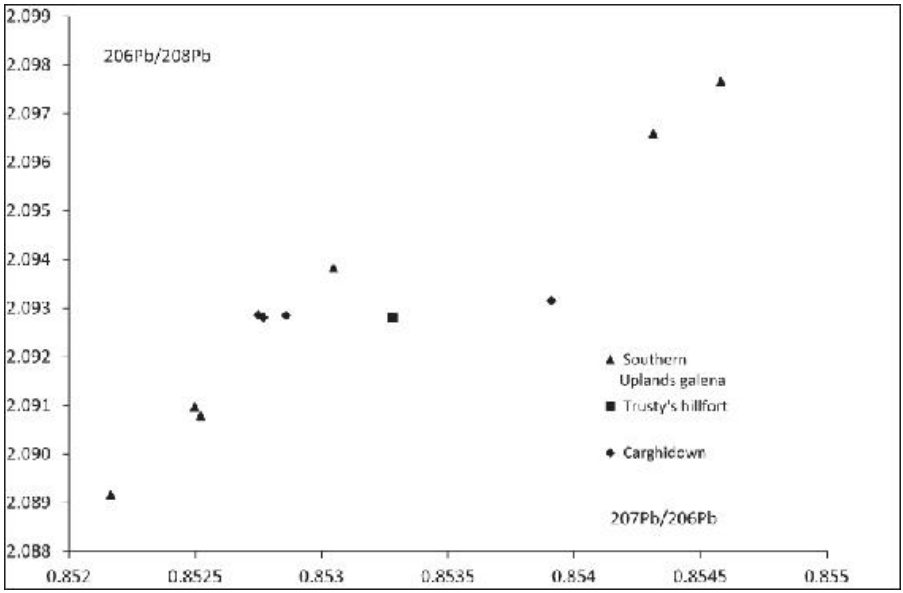


Fig. 4.13. 207Pb/206Pb vs 206Pb/208Pb plot of the data obtained for the control samples (lead beads from Carghidown Iron Age promontory fort in Galloway and Pb isotope composition galena from the southern uplands) and the Trusty Hill lead bar

Lead isotope analysis of lead bar

Vanessa Pashley and Jane Evans

The aim of the lead isotope analysis of the lead bar was to assess, from the lead composition, whether the lead used in its production bore similarity to other south-western Scottish provenanced lead. An area of the sample of the lead bar (SF 186) was cleaned by applying a dilute solution (2%) of Teflon distilled $HN0_3$. This was left to soak for ~ 5 minutes. The acid was then pipetted off and replaced with clean acid. This cleaning step was repeated a total of five times *(i.e.* until all surface contamination had been removed and a 'clean' area of the artefact exposed). A further drop of 2% $HN0_3$ was applied to this clean area, and left to stand for ~ 5 minutes, after which time it was pippetted off and placed into a clean Savillex vial where it was evaporated to dryness and converted to bromide form by the addition of 1 ml 0.5M HBr. This too was evaporated to dryness and a further 1 ml HBr added prior to Pb separation anion resin AG1 X8.

Pb isotope analysis of the sample and standards was conducted using a Nu Instruments Nu Plasma HR MC-ICP-MS (multi-collector inductively coupled plasma mass spectrometer). Prior to analysis, the sample was filtered through a Millex-LG, 0.2 μm, PTFE syringe filter (Millipore) and then diluted with an appropriate amount of 2% $HN0_3$

(i.e. to generate an ion beam intensity less than the Faraday collector saturation point of 10V). Finally, the sample was spiked with a Tl solution (added to allow for the correction of instrument induced mass bias) and introduced into the instrument via an ESI 50 µl/ min PFA micro-concentric nebuliser, attached to a desolvating unit (Nu Instruments DSN). Five ratios were simultaneously measured ($^{206}Pb/^{204}Pb$, $P^{207}b/^{204}Pb$, $^{208}Pb/^{204}Pb$, $^{207}Pb/^{206}Pb$ and $^{208}Pb/^{206}Pb$). Each acquisition consisted of 75 sets of ratios, collected at 5-second integrations.

The precision and accuracy of the method was assessed through the analysis of an NBS 981 Pb standard solution (also spiked with Tl) run before and after the sample. The average values obtained for each of the measured NBS 981 ratios were then compared to the known values for this standard (Thirwell 2002). The sample data was subsequently normalised, according to the relative daily deviation of the measured standard value from the true. Normalisation to an international standard in this way effectively cancels out the effects of slight daily variations in instrumental accuracy and allows the direct comparison of the data obtained during different analytical sessions. The analytical errors reported for the sample ratios are also propagated relative to the respective reproducibility of this standard, to take into account the errors associated with the normalisation process. The normalised and error propagated sample data is presented in Table 4.1.

The lead artefact (SF 186) from Trusty's Hill plots within the field of the lead beads recovered from stratified deposits from the Iron Age Promontory Fort at Carghidown in Galloway and close to the Pb isotope composition galena from the southern Uplands (Fig. 4.13; Parnell & Swainbank 1984). Seen in comparison with the Pb isotope plots from two fragments of Iron Age/early medieval lead slag from Cass ny Hawin (IO MMM Accession Number 1960-0028) on the Isle of Man, the results demonstrate the likelihood of a southern uplands origin for the lead used in the Trusty's Hill lead bar (Fig. 4.14).

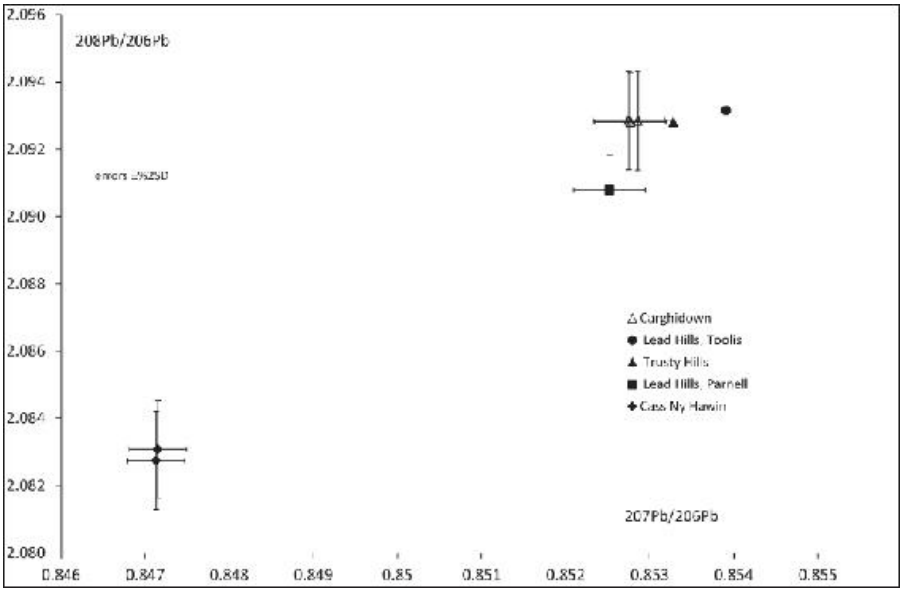


Fig. 4.14. 207Pb/206Pb vs 208Pb/206Pb plot of the data obtained for lead with south-west Scottish provenance (Trusty's Hill lead bar, Carghidown lead beads and Pb isotope composition galena from the southern uplands) in comparison with data obtained from lead slag from Cass ny Hawin on the Isle of Man, plotted as the average ± %2σ error for each sample

Metalworking

Non-ferrous metalworking debris

Ewan Campbell

Alongside the mould and crucible fragments there was a variety of other debris associated with high temperature processes recovered from Trenches 4 and 5 on the east and west sides of the summit of Trusty's Hill. Much of this material was probably from non-ferrous metalworking, but some could be from other domestic processes such as ovens, and some from the vitrified rampart. XRF analysis showed traces of copper on undiagnostic vitrified material (SF 200) from backfill deposit (4002), so is likely to have been the product of non-ferrous metalworking, but this is the only piece which can be fairly certainly attributed to fine metalworking (see Cruickshanks & Hunter below). However, a number of other pieces are probably also associated with non-ferrous metalworking, such as a fragment of a tuyère (SF 240), a clay nozzle protecting a bellows or blowpipe. There were also two fragments of furnace lining (SF 111 & 131), which like the tuyère fragment were recovered from the dark soil deposit (4007)

at the east side of the summit, and were closely associated with the mould and most of the crucible fragments, and so probably derived from a metalworking furnace in this area. This is also the area which has produced the largest pieces of fuel ash slag, vitrified material which is undiagnostic, but by association with the other material from the dark soil deposit (4007) can be said to probably derive from non-ferrous metalworking processes most likely on the eastern side of the summit.

SF 020 Stone with vitrified surface. Context 5003, Trench 5.

SF 029 Vitrified stone. Context 5017, Trench 5.

SF 102 Fuel ash slag incorporating bone fragment. Weight 8 g. Context 4010, Trench 4.

SF 107 Fuel ash slag. Weight 7 g. Context 4007, Trench 4.

SF 111 Furnace lining, internal vitrification. Weight 4g. Context 4007, Trench 4.

SF 128b Fuel ash slag. Weight 47 g. Context 4007, Trench 4.

SF 131 Furnace lining, internal vitrification. Weight 1 g. Context 4007, Trench 4.

SF 137b Fuel ash slag. Weight 3 g. Context 4007, Trench 4.

SF 148 Fuel ash slag. Context 4010, Trench 4.

SF 160b Fuel ash slag. Weight 17 g. Context 4007, Trench 4.

SF 164 Stone with vitrification over breaks. Context 4007, Trench 4.

SF 171 Fuel ash slag. Weight 13 g. Context 4016, Trench 4.

SF 179b Fuel ash slag. Weight 2 g. Context 4011, Trench 4.

Table 4.2 Summary of vitrified material assemblage

Vitrified material type		*Trench*		*Total (g)*
		4	*5*	
Ironworking	Smelting slag	292.3	1.5	*293.8*
	Smithing hearth base	342.1	–	*342.1*
	Hammerscale	2.6	0.7	*3.3*
	Undiagnostic iron slag	271.8	–	*271.8*
Undiagnostic	Magnetic residue	5.7	0.2	*5.9*
	Non-magnetic residue	0.6	1.5	*2.1*
	Fuel ash slag	13	–	*13*
Total (g)		*928.1*	*3.9*	*932*

SF 185 Stone with vitrification. Context 4007, Trench 4.

SF 191 Fired clay lump. Context 5014, Trench 5.

SF 200 Undiagnostic vitrified material. Weight 3 g. Context 4002, Trench 4.

SF 227 Fuel ash slag incorporating stones. Weight 17 g. Context 4004, Trench 4.

SF 228 Vitrified stone. Context 5012, Trench 5.

SF 232 Fuel ash slag. Weight 7 g. Context 4007, Trench 4.

SF 234 Fuel ash slag. Weight 16 g. Context 4007, Trench 4.

SF 240 Tuyère fragment, heavily vitrified. Estimated *diam.* 10 cm. Weight 11 g. Context 4007, Trench 4.

SF 274 Fuel ash slag. Context 5017, Trench 5.

Ironworking debris

Gemma Cruickshanks

A small assemblage of vitrified material was recovered during excavations at Trusty's Hill, weighing 932 g (summarised in Table 4.2). A range of high-temperature processes can produce vitrified material, from metalworking to domestic hearths. This assemblage was dominated by ironworking debris with a smaller amount of undiagnostic vitrified material, which may have been produced during a range of processes.

The early ironworking process can be split into two basic stages: smelting and blacksmithing. Smelting involves heating ore in a furnace to produce a bloom of iron, while the blacksmith heats and

hammers the iron into an artefact. There are certain types of slag which are diagnostic of each stage, based on characteristics such as shape, density and texture. The assemblage was visually examined for diagnostic features and catalogued using common terminology *(e.g.* Crew & Rehren 2002; McDonnell 2007; Paynter 2002).

A single fragment of smelting slag (SF 160), weighing 0.3 kg, was recovered from the dark soil layer (4007) on the east side of the summit. It is characteristically large in size with frequent voids and charcoal impressions. Its amorphous shape suggests it was raked out of the furnace whilst still hot and soft, rather than being left to accumulate in the base.

Table 4.3 Summary of hammerscale distribution

Trench	*Context*	*Context summary*	*Weight (g)*
4	4002	Backfill	0.2
	4007	Dark soil	1.4
	4009	Backfill	0.1
	4011	Dark soil	0.6
	4013	Backfill	0.1
	4019	Natural subsoil	0.1
5	5005	Rampart core	0.1
	5007	Rampart collapse	0.1
	5011	Collapsed rampart face	0.1
	5014	Dark soil	0.1
	5017	Construction layer	0.3
	5018	Rampart core	0.1
Total			*3.3*

One smithing hearth base (SF 161) was also recovered from a dark soil deposit (4011) on the east side of the summit. Smithing hearth bases are plano-convex accumulations of iron smithing slag which form in the hearth from small particles of slag dislodged as the iron is moved in and out of the hearth. This plano-convex base is unusual in that it comprises two small smithing hearth bases fused side-by-side, forming an '8' shape; this represents two episodes of blacksmithing without clearing the slag from the hearth.

Small magnetic flakes of hammerscale become dislodged from the iron's surface during hammering and as such are diagnostic of

blacksmithing. When found in large quantities, it is a good indicator of in situ blacksmithing but small quantities can often become dispersed around the site. Trusty's Hill produced very small quantities of hammerscale (SF 204, 205, 207–9, 211–16, 218, 224, 225, 233 & 241) from 12 separate contexts (summarised in Table 4.3) from both the eastern and western sides of the summit, with no obvious concentration indicating the focus of activity.

As is normal for ironworking assemblages, many of the pieces are small and fragmentary iron slag and may have derived from either smelting or smithing. 271.8g of undiagnostic iron slag (SF 096, 107a, 108a, 128a, 137a, 143, 161, 176, 178, 179a & 235) was collected from three contexts (4007, 4010 & 4011) in Trench 4 on the eastern side of the summit.

In addition to material diagnostic of ironworking, a small amount of undiagnostic material may have formed during a range of pyrotechnic activities. 13 g of fuel ash slag (SF 221 & 226) was recovered from the rampart core (5018) and the construction deposit (5017) on the west side of the summit. Fuel ash slag forms during the high-temperature reaction between fuel, such as charcoal, and silicates *(e.g.* from sand, clay or soil). As such, it can form during many processes, from a regular domestic hearth to ferrous or non-ferrous metalworking, both of which were present at Trusty's Hill. A small quantity (5.9 g) of tiny particles of magnetic vitrified residues (SF 206, 210, 217, 219, 220, 229, 230, 233, 236–8 & 276) was recovered during sample processing of a range of backfill (4002, 4009, 4013 & 4014), dark soil (4011), occupation (4020) and construction (4016) deposits from the east side of the summit, as well as backfill (5003) and rampart core (5002 & 5005) deposits from the west side. A small quantity (2.1 g) of tiny particles of non-magnetic vitrified residues (SF 222, 223 & 239) was also collected during soil sample processing of backfill deposit (4013) from the east side of the summit and a lens of the rampart core (5005) and bedrock interface (5008) from the west side, and are similarly undiagnostic.

Though the vitrified material assemblage from Trusty's Hill is small, it provides a valuable glimpse of craft activity at the site during the early medieval period. It is difficult to establish the scale or focus of the ironworking activity from the few scattered fragments but the dispersed hammerscale and superimposed smithing hearth base suggest repeated blacksmithing took place.

Ironworking and non-ferrous metalworking are commonly found on early medieval sites, for example at Dunadd in Argyll (Lane & Campbell 2000, 218), Mote of Mark in Dumfries and Galloway (Laing

& Longley 2006, 36) and Portmahomack in Ross and Cromarty (Carver 2008, 133 & 139). Iron smelting evidence tends to be rarer than blacksmithing during this period though it is present at Inchmarnock in Argyll and Bute (Lowe 2008, 202) and Whithorn in Dumfries and Galloway (Hill 1997, 27, 37 & 67). The frequency of metalworking evidence and other crafts on these sites highlights the craftworker's integral role in early medieval communities and the evidence from Trusty's Hill is a valuable addition to this picture.

X-ray fluorescence analysis of metalworking ceramics and copper alloy mount

Gemma Cruickshanks and Fraser Hunter

The copper-alloy Anglo-Saxon mount (SF 023), lead bar (SF 186) and 36 fragments of ceramic metalworking debris recovered during the excavations at Trusty's Hill were analysed by surface X-ray fluorescence.

Non-destructive surface X-ray Fluorescence (XRF) was employed. The XRF system used was an Oxford Instruments ED 2000 with Oxford Instruments software ED 2000SW version 1.31. The analysed area was irradiated with a primary X-ray beam produced by a Rhodium target X-ray tube. The primary beam was collimated to give an analysed area of about 4 × 2 mm. Secondary X-rays were detected with a silicon (lithium) solid state detector. The detection limit varies depending on the elements, matrix and analytical conditions, but is typically in the range of 0.05%–0.2%. As the analytical technique has a limited penetration depth, the reported compositions may not be representative of the bulk of the alloy if there is a chemically distinct surface layer. Spectra were collected with an operating voltage of 46 kV and a current of up to 1000 μA (set automatically for a 45% dead time) without a primary beam filter to ensure detection of all elements of atomic number 19 or above. The system was checked with the GM8B and C.50.20 copper alloy standards.

The flattest area of the object's surface was analysed, to allow better focusing of the X-ray beam. The crucibles were analysed on areas with visible residues in the first instance; on those without such residues the inside surface was analysed. Small fragments (<10 mm) had one analysis, larger fragments two or more. Variations in the thermodynamic properties of different metals mean the results give only a broad indication of casting alloys used (Barnes no date; Dungworth 2000). For the metal objects, the results (Table 4.4) give a

qualitative assessment of their composition; no cleaning of the surface was undertaken.

XRF analysis of the Anglo-Saxon mount (SF 023) from backfill deposit (4002) revealed that this was a copper-zinc-lead alloy (a leaded brass) which had been gilded and silvered. Interestingly, no visible trace of gilding or silvering survives on the object, although such surface treatments are common on these mounts (Blackwell *infra)*. While both gold and silver are present on the front, only a trace of silver was found on the rear; this may represent an accidental overflow from surface treatments on the front.

The lead bar (SF 186) from dark soil deposit (4011) was revealed by XRF to be lead rather than pewter although trace levels of copper and tin indicate some alloying or accidental mixture.

XRF analysis of the crucibles showed a range of metallic elements including copper, tin, lead, zinc and silver. As crucibles may have been used more than once, with different metals each time, the results probably represent an amalgam of metals rather than a single alloy. Barnes (no date) and Dungworth (2000) caution about the dangers of interpreting such results, but it is notable that a high proportion (four) of the crucibles show a combination of copper, tin and lead, suggesting use of leaded bronze. Zinc is surprisingly sparse given its volatility; it is present in only four crucibles, generally at low levels, suggesting it was not a major alloy component. Notably high levels of lead are present on six of the crucible fragments (SF 037, 087, 097a, 097b, 162 & 203) from backfill (4002) and dark soil deposit (4007) on the east side of the summit and rampart core (5018) and construction deposit (5017) on the west side of the summit, but lead is almost as volatile as zinc (Dungworth 2000; Kearns *et al.* 2010) and these are likely to derive from casting of leaded alloys, probably leaded bronzes.

Table 4.4 XRF analysis results

Find	Context	Type	Cu	Sn	Pb	Zn	Au	Ag	Other metallic element
020	5003	Crucible	x			x			
023	4002	Anglo-Saxon mount	xx	x	x	x	x	x	
037	4002	Crucible	x	x	xx				
087	4007	Crucible	x	x	xx	x			
097a	5018	Crucible	x	x	xx				
097b	5018	Crucible	xx	x	xx				
102	4010	Vitrified material							
106	4007	Crucible	x	x	x	x		x	Ni
107b	4007	Vitrified material							
128b	4007	Vitrified material (largest fragment analysed)							
131	4007	Vitrified material							
137b	4007	Failed crucible?							
148	4010	Vitrified material							
160b	4007	Vitrified material							
162	4007	Crucible	x	x	xx				
164	4007	Crucible	x						
169	4011	Crucible	x		x	xx			
171	4016	Vitrified material							
174	4007	Mould	x			x			
175	4007	Heating tray	x			x	x	x	
179b	4011	Vitrified material							
185	4007	Crucible							
186	4011	Lead strip	x	x	xxx				
192	4007	Pin mould	x		x	x			
200	4002	Vitrified material	x						
201	4010	Crucible							
202	5018	Crucible	x						
203	5017	Crucible	x		xx				
227	4004	Vitrified material (largest fragment analysed)							
228	5012	Vitrified material	x						
231	5017	Failed crucible?							
234	4007	Failed crucible?							
240	4007	Vitrified material							
271	5017	Failed crucible?							
278	4007	Crucible stand?	x						
279	4007	Mould	x		x	x			

(x = small/ moderate amount; xx = large amount; xxx = very large amount)

Silver was identified (along with copper, tin, lead and zinc) on one crucible fragment (SF 106) from dark soil deposit (4007) on the eastern side of the summit. Both gold and silver were identified on the heatingtray fragment (SF 175) again from dark soil deposit (4007) on the eastern side of the summit. Of the other vitrified ceramics, the crucible stand (SF 278), also from dark soil deposit (4007), showed copper.

All three mould fragments (SF 174, 192 & 279) showed copper and zinc while two of the mould fragments (SF 192 & 279) also showed lead, indicating all three had been used to cast copper-alloy objects. The results show a poor correlation with the data from crucibles; the latter are more reliable as the thermodynamic behaviour of metals in the reducing conditions of the mould make lead and zinc greatly over-represented in relation to their presence in the alloys (Dungworth 2000).

Sixteen fragments of undiagnostic vitrified ceramics were analysed

with the aim of establishing whether they were associated with metalworking, and if so, what type. Only two fragments (SF 200 & 228) produced metal traces, both copper. All the other fragments only produced the range of elements naturally present in clay. This does not necessarily mean they were not associated with metalworking, only that they did not come into contact with the metal.

Table 4.5 General lithics list

	Trench 2	*Trench 4*	*Trench 5*	*Total*
Chips			1 (q)	1
Flakes		3		3
Indeterminate pieces	1 (q)	1		2
Single-platform cores			1	1
Fire-flints & poss./prob fire-flints		6	3	9
Vitrified flint pebble			1	1
TOTAL	1	10	6	17

(q = quartz; the remainder are flint)

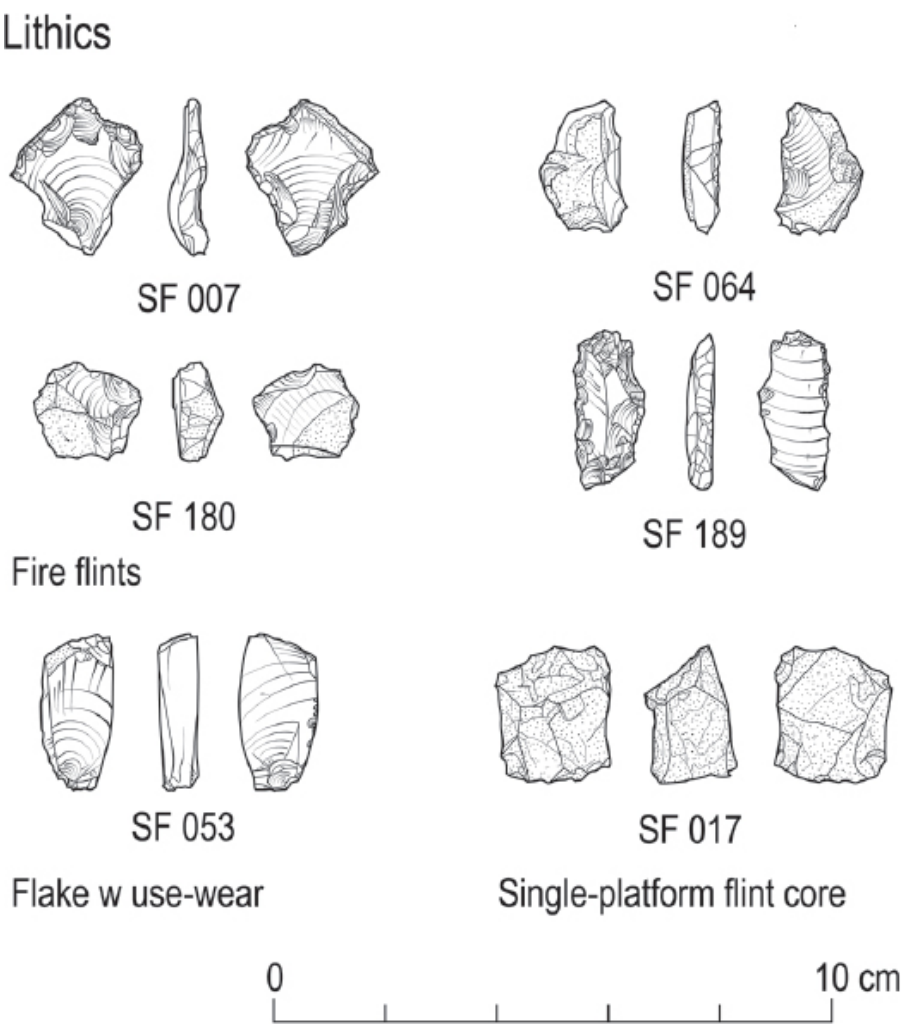


Fig. 4.15. Lithics from Trusty's Hill

Lithics

Torben Bjarke Ballin

A small lithic assemblage (16 worked pieces and one vitrified flint pebble) were recovered from the 2012 excavation of Trusty's Hill. The assemblage includes 14 worked pieces of flint and two pieces of quartz, as well as one vitrified flint pebble (Table 4.5). One flint seems to be a small core, whereas nine are fire-flints. The remaining six lithics are debitage. The debitage includes one chip, three flakes and two indeterminate pieces. Three flints (SF 039, 095 & 189) are burnt (fire-crazed and discoloured), whereas two (SF 017 & 242b) are vitrified *(i.e.* showing superficial melting/ glazing).

The flint is highly varied, and it includes fine-, medium- and coarse-grained material, as well as several different colours *(e.g.* various browns, light-grey and cream). Some of the flint types are pure, whereas others contain chalk balls or they may be highly fossiliferous. Most importantly, all the recovered cortical flint artefacts have smooth abraded surfaces, suggesting that they were procured from pebble sources, and they were probably all obtained from local streams and beaches. It has not been possible to provenance the quartz but it could have been procured in pebble form from local streams and beaches.

Only one of the flakes (SF 053) is technologically definable. This piece is a hard-hammer flake and the presence of a pronounced bulb of percussion on either face defines this blank as a Janus flake (Inizan *et al.* 1992, 57), which was removed from the ventral face of a larger flake (Fig. 4.15). Use-wear along both lateral edges indicates that this may have been used as an expedient spoke-shave for the processing of relatively hard materials (wood, bone, antler). Indeterminate flake (SF 188) has similar use-wear. The blanks of the fire-flints and the possible/probable fireflints are mostly hard-hammer flakes, although the technological attributes of some pieces indicate that anvil (bipolar) technique may also have been used.

The single-platform core (SF 017) is a fairly regular piece with an untrimmed, faceted platform (Fig. 4.15). This piece may be a residual prehistoric object.

Nine pieces have been defined as fire-flints (SF 007, 064, 140, 187 & 189) or possible/probable fire-flints (SF 013, 095, 180 & 242a). The most basic part of the fire-flint terminology is the name of the category, the purpose of which is to allow distinction between flints involved in early prehistoric *(e.g.* Stapert & Johansen 1999) and late prehistoric/historic fire-making *(e.g.* Koch 1990). Two different techniques were applied to produce fire, with early prehistoric fire-making involving a flint and a piece of pyrite, whereas late prehistoric/historic fire-making involved a flint and a mostly bullhorn-shaped steel implement. It is suggested to limit the use of the term 'strike-alight' to the implements doing the actual striking (subject), and not the material which is being struck (object). This means that, in early prehistoric firemaking, the flint is the strike-a-light (as it strikes the pyrite), whereas, in late prehistoric/historic firemaking, it is not (as it is being struck by the steel strike-a-light). Struck late prehistoric/historic lithics should therefore be referred to as 'fire-flints' (Ballin 2005, 18). The fact that the early prehistoric and late prehistoric/historic fire-making flints are subjects and objects, respectively, results in notably different wear-patterns, with the

former developing smooth abraded points, whereas the latter develop chipped and crushed edges.

The pieces from Trusty's Hill generally have chipped/crushed edges and, occasionally, battered dorsal ridges. In most cases, these flints were used for fire-making without any secondary modification *(e.g.* SF 007; Fig. 4.15). However, one fire-flint (SF 187) has one finely blunted edge, the purpose of which may have been to protect the user's fingers during use. The edges of fire-flints (SF 064 and 188) may have been retouched prior to being struck, simply to strengthen the edges (Fig. 4.15). However, this is not certain, and the apparent coarse lateral retouch may have been formed by the pieces being struck repeatedly by a steel strike-a-light. Another possible fire-flint (SF 180) has a slightly convex denticulated working-edge, which results in the piece resembling a crude scraper (Fig. 4.15), but it is probably more likely that this edge was formed by being struck by a steel strike-a-light. Repeated use of a stone as a fire-flint frequently results in the formation of lateral concavities. The best example of this is a four-sided flake fragment (SF 007), which has been battered along all four edges, and all edges display notable concavities (Fig. 4.15). One lateral edge of an elongated fire-flint (SF 189) is slightly denticulated, whereas the other lateral edge displays two adjacent shallow concavities (Fig. 4.15).

Fire-flints are notoriously difficult to date by typo-technological analogy, but the fact that several pieces are vitrified (SF 017 and 242a), whereas others are heavily burnt (SF 039, 095 and 189) suggests that they may have been made and used prior to the destruction of the fort by fire, the event that transformed the site into a *vitrified* fort. The use of steel strike-a-lights for fire-making (rather than making fire by striking pyrite with a flint) indicates a date after the Bronze Age/Iron Age transition. This suggests that the flints recovered from Trusty's Hill are not residual Mesolithic or Neolithic pieces, but that they are contemporary either with the earliest Iron Age occupation of the site, or with the site's subsequent early medieval settlement.

As shown in Table 4.5, one indeterminate piece was recovered from the backfill (2005) of Thomas' excavation of the rock-cut basin in Trench 2, ten pieces predominantly from dark soil deposits (4007 & 4011) from Trench 4 on the eastern side of the summit, and six from the backfill (5003) and the topmost lens of the vitrified rampart (5002) from Trench 5 on the western side of the summit. All the fire-flints were recovered from the eastern and western sides of the summit; in terms of interpreting the specific use of the fire-flints, their

association with metalworking debris, particularly in Trench 4, may be important.

SF 007 Fire-flint on secondary hard-hammer flake (24 × 23 × 7 mm); fine-grained dark-brown flint (Fig. 4.15). This piece is without doubt the most obvious fire-flint from Trusty's Hill: the piece is roughly square, and it has been heavily battered along all four sides, creating notable concavities, and detaching sizeable chips from either face. Context 5002, Trench 5.

SF 013 Proximal fragment of secondary bipolar flake (16 × 16 × 8 mm); fine- to medium-grained, light-brown to cream flint. Coarse use-wear along the left lateral edge suggests use either as a spoke-shave or a fire-flint. Context 5003, Trench 5.

SF 017 Fragmented tertiary single-platform core (25 × 21 × 15 mm); medium-grained, vitrified (discoloured white) flint (Fig. 4.15). The core's platform is untrimmed and faceted; the core's apex and one lateral side have disintegrated. Context 5003, Trench 5.

SF019 Burnt pebble (19 × 15 × 13 mm); discoloured flint. Four small detached 'pot-lid' chips show how the exposure to fire coloured the exterior of the piece dark, whereas the interior has turned white. The shiny cortex of the piece defines this piece as technically vitrified. Unworked. Context 5003, Trench 5.

SF 039 Tertiary indeterminate piece (17 × 16 × 13 mm); fine-grained, heavily burnt (discoloured white) flint. Context 4002, Trench 4.

SF 051 Tertiary indeterminate piece (26 × 24 × 14 mm); fine-grained, white milky quartz. Context 2005, Trench 2.

SF 053 Secondary hard-hammer Janus-flake (28 × 15 × 7 mm); fine-grained, light-brown flint (Fig. 4.15). As a Janusflake, this piece was struck from a thick parent flake, for which reason it has a notable bulb-of-percussion on either face. It has notable use-wear along both lateral sides, probably from use as a spoke-shave on hard material(s). Context 4007, Trench 4.

SF 064 Fire-flint on primary indeterminate flake (23 × 14 × 7 mm); medium-grained, light-brown to cream flint (Fig. 4.15). The two lateral sides appear retouched, but this may mainly be battering from having been struck by a steel strike-a-light. The modified/worn lateral sides are straight to slightly concave, and sizeable chips were removed along both sides, ventral and dorsal faces, by use. Context 4007, Trench 4.

SF 092 Unspecified fragment of tertiary indeterminate flake 20 × 17 × 7 mm); medium-grained, heavily discoloured (white). Context 4007, Trench 4.

SF 095 Possible fire-flint on secondary indeterminate piece (17 × 15 × 11 mm); medium-grained, heavily burnt (discoloured white) flint. The ripples of some flake scars indicate that the piece may have been produced (at least partially) by the application of bipolar technique. Several edges are heavily battered, possibly from having been struck by a steel strike-a-light. Context 4007, Trench 4.

SF 140 Medial fragment of fire-flint on secondary indeterminate flake (8 × 15 × 5 mm); fine-grained, lightbrown flint. Up to eight millimetres survive of each lateral

side. Those sides show signs of heavy battering, probably from having been struck by a steel strike-a-light. Context 4007, Trench 4.

Table 4.6 Worked stone artefact types

Find No.	*Trench*	*Context*	*No. pieces*	*Description*	*Context description*
A 001	4	4001	1	Rubbing stone	Topsoil
018	5	5003	1	Rubbing stone	Backfill
029	5	5013	1	Anvil	Rampart collapse
035	5	5014	1	Spindle whorl	Dark soil
043	2	2002	2	Rubbing stone	Backfill
183	4	4011	1	Unworked	Dark soil layer
190	2	2002	1	Unworked	Backfill
B 021	4	4002	1	Rounded pebble - slingstone	Backfill
059	4	4003	26	Rounded pebbles - slingstones	Backfilled rampart collapse
068	2	2005	3	Rounded pebbles - slingstones	Backfill
085	4	4003	21	Rounded pebbles - slingstones	Backfilled rampart collapse
110	4	4007	8	Rounded pebbles - slingstones	Dark soil
112	4	4007	2	Rounded pebbles - slingstones	Dark soil
123	4	4007	12	Rounded pebbles - slingstones	Dark soil
149	4	4011	5	Rounded pebbles - slingstones	Dark soil
155	2	2005	5	Rounded pebbles - slingstones	Backfill
156	2	2007	3	Rounded pebbles - slingstones	Primary fill of rock cut basin
		Totals	*97*		

SF 180 Proximal fragment of denticulated scraper or fire-flint on tertiary indeterminate flake (18 × 18 × 8 mm); medium- to coarse-grained, cream flint (Fig. 4.15). The proximal end has acquired a roughly convex, denticulated delineation by having been struck repeatedly. However, it is uncertain whether this edge represents an uneven scraperedge, or whether the edge was shaped by being struck by a steel strike-a-light (at the points of the individual dents). The fact that various dorsal ridges also appear battered, supports the fire-flint interpretation. Context 4011, Trench 4.

SF 187 Distal fragment of fire-flint on secondary flake w edge-retouch (12 × 12 × 3 mm); fine- to medium-grained, light-brown flint. The right lateral side of the piece has been blunted by fine retouch. The distal end is concave and shows signs of having been battered by a steel strike-a-light (a number of small chips have been detached ventrally as well as dorsally). Context 4007, Trench 4.

SF 188 Lateral/distal fragment of secondary indeterminate flake (17 × 16 × 10 mm); fine-grained, light-grey flint. The ridge between the surviving ventral face and the brokenoff left lateral side displays use-wear from the processing of hard materials. This piece may also have been used as a spoke-shave. Context 4007, Trench 4.

SF 189 Medial fragment of fire-flint on tertiary ?bipolar flake (28 × 13 × 5 mm); fine-grained, dark-brown flint (Fig. 4.15); burnt, but not discoloured. Although the piece is missing both ends, the character of the ventral ripples indicates that the piece may have been produced by the application of bipolar technique. The two lateral sides appear retouched, but this may mainly be battering from having been struck by a steel strike-a-light. Context 4007, Trench 4.

Fig. 4.16. Selection of slingstones from eastern side of summit of Trusty's Hill

SF 242a Proximal fragment of tertiary hard-hammer flake, possibly fragment of fire-flint (10 × 13 × 4 mm); fineto medium-grained, vitrified (discoloured white) flint. Surviving bits of the lateral sides show signs of having been battered. Context 5002, Trench 5.
SF 242b Chip (10 mm); fine-grained, white milky quartz. Context 5002, Trench 5.

Coarse stones and stone tools

Beverley Ballin Smith

The 2012 archaeological work at Trusty's Hill produced a small but interesting range of stone artefacts. In total there were 97 stone artefacts recovered, the majority (89) of which were unworked pebbles, the remainder (8) comprised rubbing or burnishing tools, a spindle whorl, an anvil and other unworked stones. The different tool and artefact types are shown in Table 4.6, which is divided into two parts. Part A is a list of worked or possibly worked stone and Part B comprises small, rounded unworked stones identified as slingstones.

Table 4.7 Geology of the slingstones

Number	Rock type
2	sandstone
16	quartz
68	granite

Table 4.8 Stone shape

Sub-angular	Elongated rounded	Sub-rounded	Flattened rounded	Irregular rounded
1	11	27	3	43

Table 4.9 Slingstone weights

Stone type	Total weight (g)	Average weight (g)
Granite (65)	4444.7	71.5
Quartz (15)	1302.5	87
Sandstone (1)	54.8	54.8
Individual average weight		74
Total weight	5802	

Slingstones

A total of 89 rounded stone pebbles, including five cobbles each over 200 g in weight, were retrieved from Trenches 2 and 4 during the 2012 excavation. The majority (78) of these rounded stones, were found located close together either in two caches, totalling 47 stones, in the backfilled interior rubble collapse (4003; SF 059 & 085; see Fig. 2.10) or distributed within dark soil deposits (4007 & 4011) on the eastern side of the summit, suggesting they had been deliberately collected and brought to the site for use. There is great variation in size and shape (Fig. 4.16).

Their geology is somewhat varied (see Table 4.7) indicating that the shape of the stone was perhaps more important than its type, although the majority are granite pebbles. The stones are likely to have been deliberately collected from a nearby water source such as the River Fleet, which is likely to have brought stones from other geological areas downstream, as the inclusion of sandstone and quartz implies.

The stones have shapes that suggest roundness was preferred, even though there are flattened or elongated examples as the variations in

Table 4.8 show. No stone is spherical. There was some preference for shapes that were irregularly rounded (50 %) and sub-rounded (*c.* 32 %) but not all were. Examination of depositional contexts and shape showed that there was no specific tendency for one shape over another. Most depositional contexts contained a mixture of stone shapes.

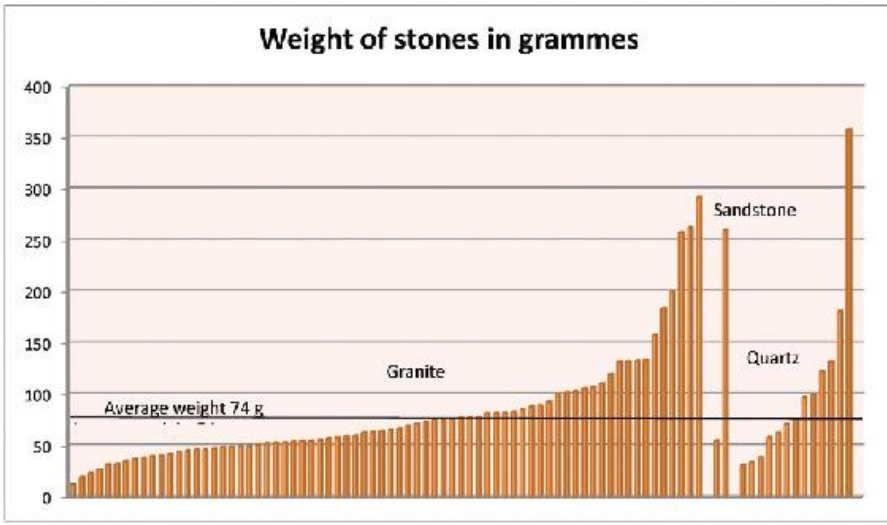


Fig. 4.17. Weight of slingstones in grams

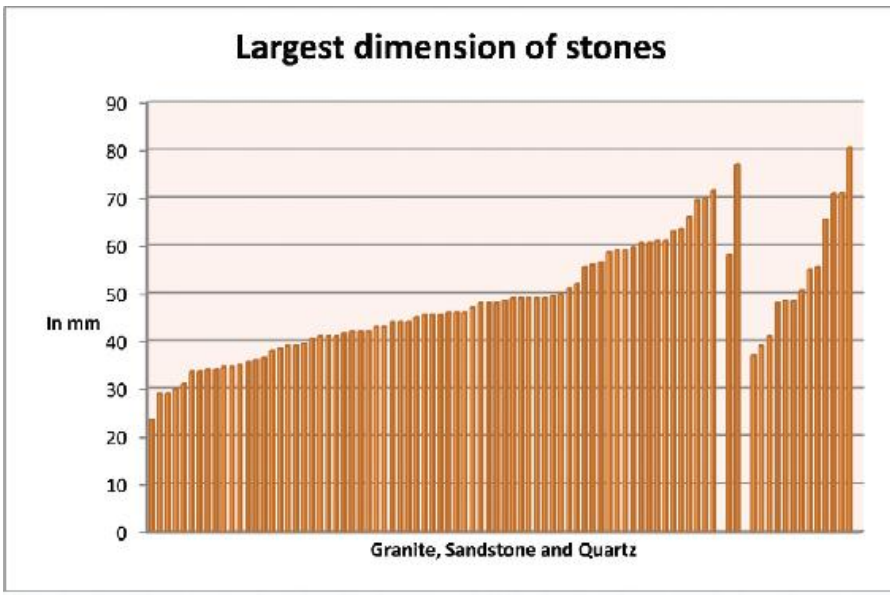


Fig. 4.18. Largest dimensions of slingstones

The weights of individual stones vary from 12.5 g to over 180 g

(Table 4.9). Six stones or cobbles weighed over 200 g and are discounted from Table 4.9. The different rock types produced different average weights with sandstone being the lightest. The average weight of a stone was calculated to be 74 g. The slightly lighter weight granite stones were preferred over quartz, but that may have been a result of what resources were available.

The weight of each stone has been plotted and divided into stone types (Fig. 4.17). The average weight is show as 74 g and the six stones weighing 200 g or more are cobbles. An attempt was made to see if the largest measured dimension of the stones would show any distinctive characteristic across the stone types (Fig. 4.18). It can be seen that the majority of stones lie within the 30 to 50 mm size range, with very few below 30 mm in length.

The stones were examined for evidence of working (chipping, hammering, abrasion, polish, *etc.)* but all were found to be in a natural and unmodified state. The most important aspect of these stones is the fact that the majority were found close to the interior side of the rampart on the eastern side of the summit, either distributed within dark soil layers (4007 & 4011), or in two concentrations within the backfilled interior rampart collapse (4003).

A flexible sling with a cradle and a small stone was probably one of the earliest weapons and one that was easiest to make with a strip of leather that held a round stone or pebble (Richardson 2013). In the south of England, slings were identified as defensive weapons at Iron Age hillforts, such as Danebury and Maiden Castle where huge numbers of slingstones were found in pits close to the rampart gateways (Cunliffe 1991, 489); those from Danebury were as large and as heavy as those from Trusty's Hill (Richardson 2013). Cunliffe suggests slingstones and hillforts are closely associated, as the former was an effective weapon against an attacking enemy. In research into slingstones and slingshot, experiments with stones up to 160 g and lead balls up to 100 g in weight demonstrated that these stones could be effectively used with a sling (Richardson 2013). The shot used in this experiment lies towards the top end of the Trusty's Hill stone weight range, but nevertheless they could be cast over 100 m distance using a sling.

Nine stone balls identified from the Dunion hillfort in the Scottish Borders were interpreted as gaming pieces rather than slingstones but further information on their size and weight was not available (Rideout *et al.* 1992, 102). The evidence from broch sites where stone balls have been found, such as Howe in Orkney and Clickhimin in Shetland, for example, indicates that they lie at the smallest end of the

Trusty's Hill examples (Fig. 4.18), and are often highly polished suggestive of gaming pieces or amulets (Ballin Smith 1994, 191). Their numbers are also very low.

Though the number of slingstones in the assemblage at Trusty's Hill is relatively low, it is analogous with some of the larger Iron Age hillforts in southern England, where slingstones were gathered close to the rampart gates for defensive purposes. The slingstones from Trusty's Hill were predominantly found immediately behind or associated with the eastern ramparts, suggesting perhaps they were gathered and stored at this location near the gateway, ready for use with a sling.

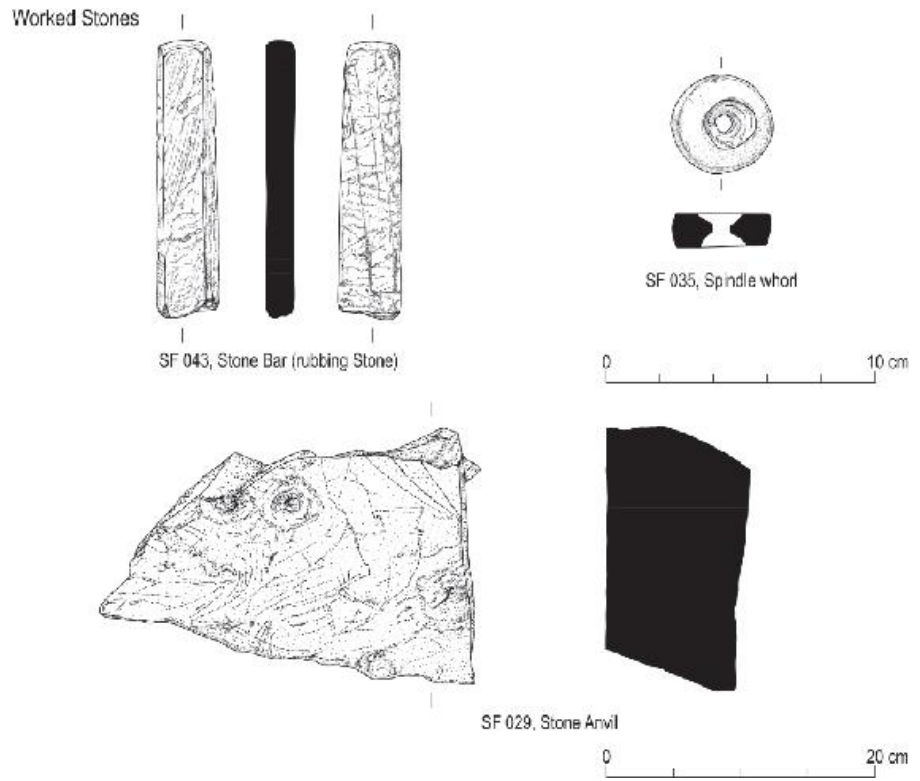


Fig. 4.19. Worked stones from Trusty's Hill

Spindle whorl

A spindle whorl (SF 035; Fig. 4.19) was recovered from a dark soil layer (5014) in Trench 5 on the western side of the summit. The whorl is almost circular, 37 mm in diameter, with vertical sides 12 mm deep and weighs 21.7 g. It was made on soft blonde, fine-grained sandstone but had suffered surface spauling and nicks on its edges and sides. The piece was shaped with a knife as the evidence of the sides suggests.

They are uneven and slightly facetted where they have been cut or trimmed. Both surfaces are flat and smooth and are pierced by a perforation. A knife was again used to produce a wide (15.5–17.5 mm) aperture on both surfaces of the whorl, which narrows to the central perforation, 7 mm in diameter. The uneven surface aperture and serrated marks within it suggest that the knife had a narrow blade. The use of a knife for the manufacture of this whorl contrasts with that of prehistoric whorls, which were generally drilled and smoothed.

Williams described several spindle whorls from early ecclesiastical sites, mostly from churchyards but now in the Dumfries Museum (1966, 149–51). One example from Durisdeer is a fine-grained sandstone piece, but all are similar: in measurements (diameters vary between 38 mm and 52 mm) and weights (between 26 g and 50 g). Their thickness is between 1.1 mm and 1.5 mm, the diameter of their perforations varies between 0.9 mm and 1.4 mm, and several examples are splayed. Most whorls are decorated with generally coarse incised lines on one or both surfaces. Williams' shows their shapes were not entirely round, with examples 2, 3 and 4 exhibiting some straightness of their circumferences (1966, 150, fig 3). Example 5 is slightly larger than that found at Trusty's Hill but its crude manufacture is similar. The Trusty's Hill spindle whorl shares characteristics with these published whorls as all appear to have been knife-trimmed. Their dates are not discussed further by Williams but the Durisdeer spindle whorl was associated with a tenth century Northumbrian Cross fragment.

Table 4.10 Weights and measurements of rubbing stones

Find	*Context*	*Weight (g)*	*Length (mm)*	*Breadth (mm)*	*Width (mm)*	*Type*
001	4001	53.1	115	23.5	10.2	Rubbing stone
018	5003	21.6	80	18	10.5	Possible rubbing stone
043	2002	47.7	104	21.5	11	Rubbing stone/ burnisher
183	4011	83.1	71.5	35	22.5	Unworked
190	2002	17.7	74	12.5	15.5	Unworked?

The crude manufacture of the whorl indicates that it was expediently and quickly produced. Apart from the examples mentioned above, another comparable spindle whorl of similar dimensions was found at the Mote of Mark (Laing & Longley 2006, 95, fig. 45, 1227). This whorl was decorated by a crude incised design on one face and was found within the backfill from the 1913 excavation of the site.

From current evidence, this type of spindle whorl is not uncommon in Dumfries and Galloway but the example from Trusty's Hill is well provenanced and from a radiocarbon dated context. The sixth/seventh century date, for the context from which the whorl was recovered, does not conflict with Williams' ideas of their association with early ecclesiastical sites, but a broader interpretation is needed to include occurrences from hillforts and other settlement types of the same period. Spindle whorls of this type were pieces of equipment that were likely in general use across a variety of settlement types.

Rubbing or burnishing stones

Five stones, comprising four bars and one elongated pebble-end, form a small collection of rubbing stones and similar objects recovered from the 2012 excavations (Table 4.10).

The majority of these pieces are largely unmodified bars, including one thin cobble (SF 190). If they were bar whetstones, they would be the right shape and the right type of stone, but they are not. Three of the five pieces are modified and some are only slightly so. SF 043 is the best example, identified as a rubbing stone or burnisher (Fig. 4.19). Its worn ends indicate that it had a specific use, probably rubbing or smoothing across a flat surface area, but the shaft of the bar was its unmodified handle.

Stones with smoothed ends have been found at other hillforts. One interesting sandstone example was found in modern disturbances over the rampart at Dunadd (Lane & Campbell 2000, 191, Illus 4.105, 63) where it was tentatively identified as a pestle/ whetstone. Although squat in shape and with a rectangular section, both ends are polished, one end being dome-shaped while the other is flat. Another cylindrical sandstone piece was found at the Mote of Mark and was described as a whetstone and burnisher (Laing & Longley 2006, 93 & 95, fig. 45, 2229). Similar examples were found at Whithorn which were considered to have been used to polish enamel or gems, or burnish gold, silver or pattern welding (Chadburn *et al.* 1997, 458, fig. 10.119). The Trusty's Hill examples are fine-grained but it is suggested that SF 043 may have been used for working and smoothing leather or skin as the tool is relatively soft and the wear or polish on its ends is smooth.

SF 001 This piece is a thin bar of fine-grained siltstone. It is largely unmodified but does have patches of iron staining on its surfaces due to it lying in damp or wet conditions. It was probably selected to be used as a whetstone/polisher but its surfaces are unmodified. One end tapers to an oblique blunt point and the curved edge of it is facetted with wear on the flatter surface of the tool. This discrete area of

polish indicates that the bar has been used as a rubbing tool. It was found in topsoil at the east side of the summit. Context 4001, Trench 4.

SF 018 This is a fragment of a split bar of fine-grained sandstone/siltstone found in the backfill of the trench at the west side of the summit. One surface is rough with sharp edges where the bar has split and one end is faceted. The end could be the result of slight wear by rubbing, otherwise the piece is unmodified. Context 5003, Trench 5.

SF 043 This bar is of fine-grained sandstone/siltstone (Fig. 4.19). It is largely unmodified except for one end which is smooth and rounded through its use as a rubbing tool. The wear has progressed slightly onto the two flat surfaces and both sides. There is in addition a small area which has been rubbed smooth on one corner of the other end. It was recovered from the backfill of the rock-cut basin at the entranceway. Context 2002, Trench 2.

SF 183 This is a fragment of an elongated but thin cobble, broken across its middle. It was found in a dark occupation layer (4011) on the east side of the summit. The cobble fragment is of fine-grained micaceous sandstone and is unworked. One edge has been chipped and resulting spalls were produced on adjacent surfaces. Context 4011, Trench 4.

Fig. 4.20. Anvil stone from Trusty's Hill

SF 190 This pointed and tapering bar is the smallest of the five objects but is also formed from split blonde fine-grained sandstone/siltstone. Its sides and surfaces are rough and unmodified. However, there is some slight smoothing of the edges

towards the tip of the piece, and the flat end is smooth and straight. The smoothed areas could be the result of either the natural rock surface or of taphonomic processes. There is no clear indication that this piece has been used as a tool. It was recovered from the backfill of the rock-cut basin at the entranceway. Context 2002, Trench 2.

Anvil

A large, hewn, wedge-shaped block of pink sandstone (SF 029) was found within the rampart collapse (5013) in Trench 5 on the west side of the summit (see Fig. 2.18). It weighs *c.* 8 kg and measures 275 × 197 × 106 mm. The upper face of the stone indicates that it has been a working platform, possibly used as an anvil. The most prominent features are three indentations (Figs 4.19 & 4.20). Two of these lie close together near one long edge. Both indentations have been partially formed by pecking, and possibly by hammering with a metal object, to a depth of 8–10 mm. The larger hollow measures 30 × 35 mm and is splayed. The other hollow is a similar shape but is also only partial, as one side became detached as it lay closest to the edge of the stone. A third pecked hollow (33 × 24 × 8 mm) is situated on the short edge of the block, indicating that the stone split here, as the hollow is only partially present.

The other long edge of the stone has signs of more extensive working. There is a small area of pecking, towards the short side; there are many chipped areas; but smoothing of the edge is most noticeable. The smoothing and rounding of the edge continues to the pointed end and down the other long edge of the stone to the partial pecked hollow. The entire surface of the stone has small nicks and other discrete areas of wear. One of the most noticeable features of the stone is that one third of the area encompassing the point, and including the two adjacent hollows, is burnt. Here, the colour of the sandstone has changed to a pale orange. It is likely that the burning is due to the stone being used as an anvil rather than being burnt in a fire.

Suitable boulders or blocks of stone were often used as anvils on sites with metalworking. One large example described as a possible anvil was a round stone with polish, scorching and a circular depression, found in a modern disturbance over the rampart at Dunadd (Lane & Campbell 2000, 192, Illus 4.104). None was apparently found at Mote of Mark in spite of the copious evidence of metalworking.

The Trusty's Hill example is only partial. Hammering metal on the stone caused fragments of the block to break off, so the original size of

the stone is not known. It is quite likely that fractured stones would be discarded and the rampart rubble collapse (5013) context of its deposition suggests that it had been re-used in the fabric of the rampart.

Discussion of coarse stones and stone tools

The stone assemblage from Trusty's Hill has much in common with those found at the hillforts of Dunadd and Mote of Mark, and also the settlement of Whithorn. The radiocarbon dating evidence from the deposits at Trusty's Hill clearly provides an early medieval date for the range of stone tools and other artefacts that were found there. Although the 2012 excavations were limited in extent, they revealed a range of stone tools that give some insight into the occupation of Trusty's Hill.

The excavations at Mote of Mark recorded 26 stone artefacts (Laing & Longley 2006, 93–5) and those from both Dunadd (Lane & Campbell 2000, 177–96) and Whithorn (Chadburn *et al.* 1997, 443–64) considerably more. Common to these sites were querns, although the Trusty's Hill and the Mote of Mark examples, both recorded from earlier excavations in the twentieth century, have been lost. Grinders and pounders, possibly with uses other than food preparation, were found at both Dunadd and Mote of Mark but not in the trenches excavated at Trusty's Hill. Other stone artefact types not found at Trusty's Hill include those associated with metalworking, such as moulds and clearly defined whetstones, and counters or playing pieces indicating activities such as the playing of games. Whorls or spindle whorls were, however, found at all these sites.

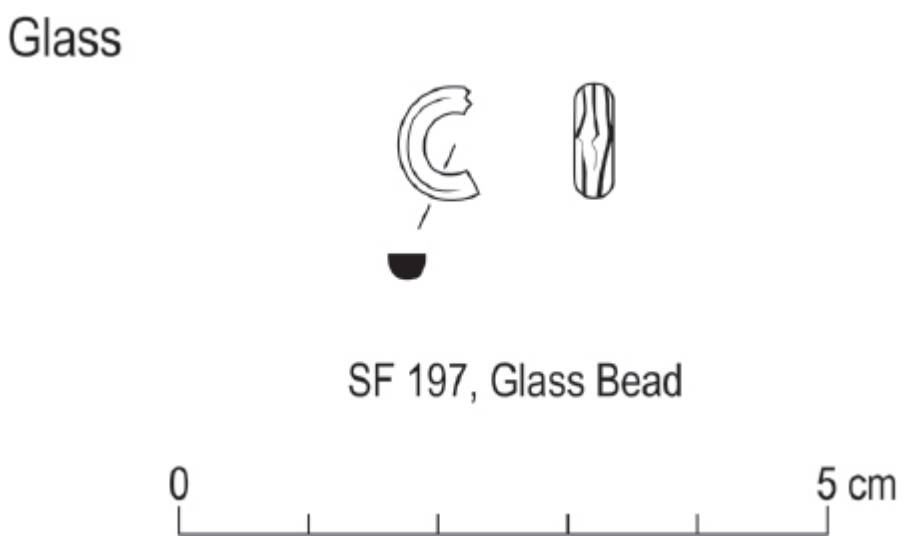


Fig. 4.21. Glass bead from Trusty's Hill

In spite of the reduced stone artefact assemblage, there are ample indications of metalworking at Trusty's Hill (see Campbell, Cruickshanks & Fraser above), such as the anvil stone, moulds made from other materials and possibly the rubbing and burnishing stones, although these last artefact types were perhaps most likely used on other, softer materials. The presence of these general and specific tool types, albeit in low numbers, indicates that Trusty's Hill formed part of a wider social and economic network in the early medieval period. Evidence for domestic activities is weak but this could simply reflect where the excavation trenches were placed and the limited area excavated.

What makes Trusty's Hill different in its outlook and possible function as a hillfort, in comparison with Dunadd and Mote of Mark, is the collection of slingstones found near its defences. Neither of the latter two sites had stones of this type for defence. The collection of slingstones and their stock-piling for use implies a threat, either from neighbours or from others from further afield. The stones were located on the east side of the summit, positioned close to the defences on the south-eastern side of the hill, where the contours were less severe and where the approach to the entranceway lay.

Glass

Glass bead

Fraser Hunter

The yellow glass bead (SF 197), from the construction layer (5017) on the west side of the summit of Trusty's Hill, opens up a range of intriguing stories about the site. Its form, annular with flattened surfaces (Fig. 4.21) and opaque yellow colour (Fig. 4.22) are typical of Guido's class 8 (1978, 73–6), shown by recent finds from well-dated contexts to be a phenomenon in Scotland of the second century BC–second century AD; indeed, some dates could support an origin as early as the later fourth century BC (Hunter forthcoming b; Ashmore 2005, 166). At face value, this implies an Iron Age phase to the site, or an extended use-life for this bead, greater than its visible wear would suggest. But there is a complicating factor, the presence of opaque yellow glass beads in Anglo-Saxon contexts, including annular forms (Guido 1999, 36–8). Guido notes that these are impossible to

distinguish visually but can be distinguished analytically *(ibid.)*. Here, the use of antimony as a colourant places the Trusty's Hill bead in a firmly Iron Age context (see Davis below); indeed, Davis argues that the best compositional parallels are to Middle Iron Age beads, providing some additional support for the earlier part of the type's date range. Thus, the composition of the Trusty's Hill bead and the limited wear suggest an Iron Age activity phase at the site.

Fig. 4.22. Glass bead from Trusty's Hill

Past discussions have focused on the idea of relatively few production centres for such beads, one in north-east Scotland and one in Somerset, but this seems to be misleading. Henderson's analytical discrimination (1991, 124–5) between these two areas (the north-east using lead-tin oxide colourants, Somerset using lead antimonate) has also proved to be over-simplistic. Work on the assemblage from

Culduthel near Inverness (Davis & Freestone forthcoming) demonstrates the production of class 8 beads from imported (antimony-coloured) ingots at the site, but also the import of (tin-coloured) beads; Henderson's pilot work on Irish beads (1987a) similarly indicated a different regional tradition, here using tin rather than antimony colourants in a pre-Roman context. The production of glass jewellery in the Iron Age of south-west Scotland is confirmed by finds of yellow glass ingots from the fort of Dunagoil in Bute (unpublished; finds examined in Bute Museum) and by the presence of unusual globular beads at Luce Sands in Galloway, some deformed and thus likely to be wasters (Hunter *et al.* forthcoming). Class 8 beads have a wide distribution, though the map in Guido (1978, fig. 25) is outdated, with finds from Burnswark in Dumfriesshire adding to the south-western spread (Jobey 1978, 94).

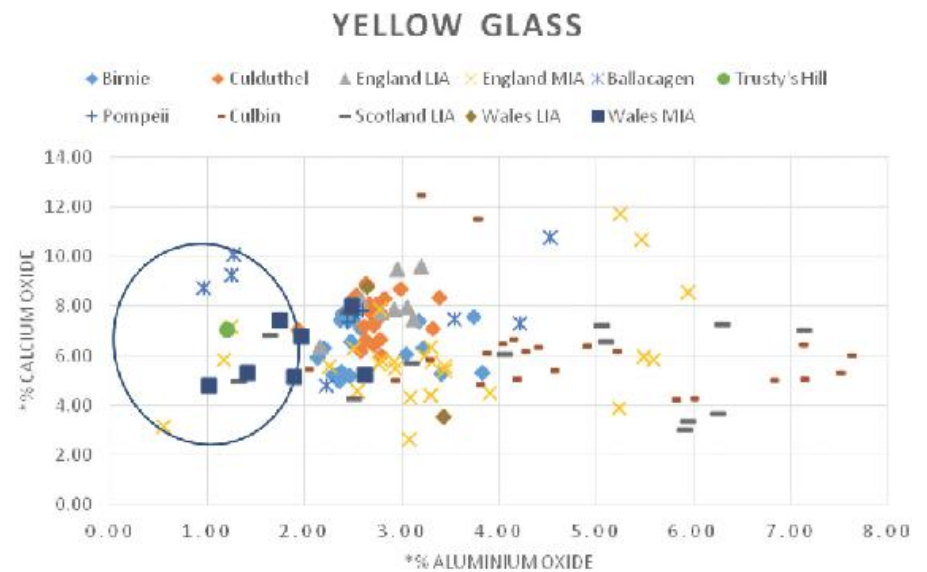


*Fig. 4.23 Scatter diagram of alumina versus lime in yellow glass; the group on the left hand side (blue circle) are predominantly Middle Iron Age (MIA) as opposed to Late Iron Age (LIA). The scatter diagrams do not use copper, antimony and lead oxide contents; these totals are subtracted, and the remaining total normalised to 100% to give a more accurate indication of the initial glass composition before the addition of colourants; * indicated where limited elements have been used*

SF 197 Annular bead fragment in opaque yellow glass; twothirds survives (Fig. 4.21). D-sectioned, with flattened faces which show slight wear. The glass has some air bubbles and slight colour variation in the form of circumferential trails of a brighter yellow, suggesting variation in the melt and indicating that the bead was formed by twisting a rod into a circle rather than piercing a blob of glass. A slight dark stain on the interior derives from the iron rod used as a former. External diam. 8–9 mm; internal diam. 4.8 mm; height 3.3 mm. Soil sample 029, Context 5017, Trench 5.

Elemental analysis of glass

Mary Davis

Elemental analysis of five fragments, recovered during the post-excavation processing of soil samples and provisionally identified as glass, was carried out using a CamScan Maxim 2040 scanning electron microscope (SEM) fitted with an Oxford Instruments energy dispersive X-ray detector and INCA spectrometer (EDS). Operating conditions employed a 30º takeoff angle, a 20 kV accelerating voltage, and the samples were analysed for 100 seconds livetime with a beam current which yielded a count rate of *c.* 4000 counts per second when on a metallic cobalt standard. The spectrometer was calibrated using pure elements, oxides and minerals; for lead, a leaded glass standard was used where high concentrations of lead oxide were present. Corning A-D (Brill 1999) and a range of commercial glass standards were used to evaluate accuracy and precision. To avoid unnecessary damage, the objects were sampled using a diamond-coated file to score across a small section of the surface of the object to produce fine glass flakes. The procedure was originally assessed to be suitable for the classification of glass types and to allow useful conclusions to be drawn about raw materials, provenance and date, although not as accurately and precisely as for mounted and polished samples (Bronk & Freestone 2001). As expected, using the flake method the overall percentage totals departed from 100% due to the variable geometry. As observed by Bronk and Freestone (*ibid.*) the standard deviation for the flakes was slightly greater than that for polished samples; also as with the polished samples, the largest standard deviations were for sodium, possibly due to its volatility in the electron beam, and lead, antimony and tin, probably due to uneven dispersal of these metal compounds within the glass matrix, especially when used as opacifiers. Analyses were normalised to totals of 100% so they could be compared to one another and to other analyses.

Table 4.11 Results of the elemental analysis of the small opaque yellow annular bead (SF 197)

Na_2O	MgO	Al_2O_3	SiO_2	P_2O_5	SO_3	Cl	K_2O	CaO	TiO	MnO	Fe_2O_3	CuO	Sb_2O_5	PbO
13.1	0.5	1	54.7	0.1	bd	1	0.5	5.5	0.1	0.1	2.5	0.2	1.2	19.7

(bd = below detection level)

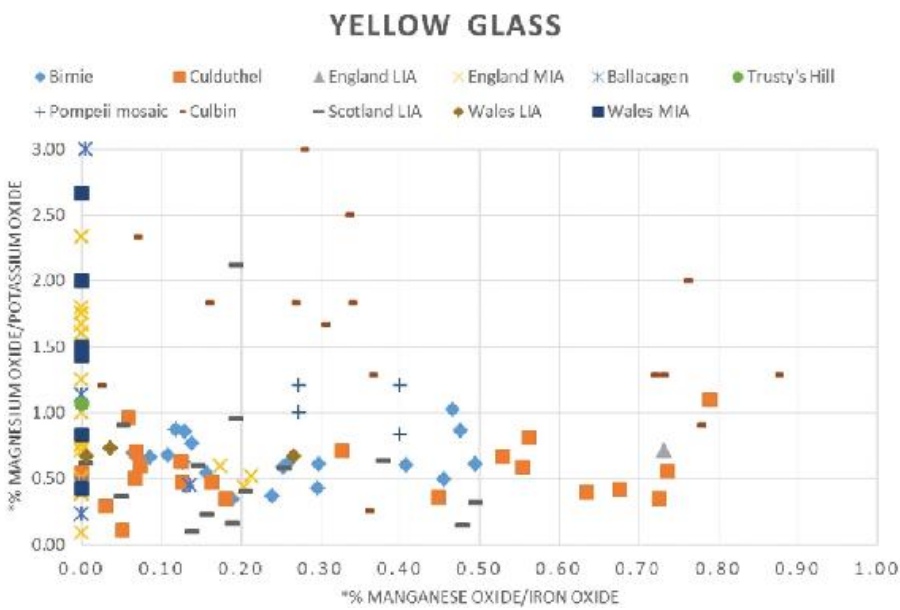


Fig. 4.24. Scatter diagram of manganese oxide/iron oxide versus magnesia/potash in yellow glass

YELLOW GLASS BEAD FRAGMENT

The results of the elemental analysis of the small opaque yellow annular bead (SF 197) show that the glass is a mineral soda-lime silica glass coloured yellow by lead antimonate (Table 4.11). The analysis points to Middle Iron Age rather than Late Iron Age composition (Fig. 4.23).

Alumina is likely to have been incorporated into the glass with the silica as a naturally occurring impurity; its concentration therefore reflects the raw material and may be used to provide an initial impression of production-related groupings. The majority of Late Iron Age yellow glass contains two to three percent alumina, but there is a clear group, including the Trusty's Hill bead, which contain less than 2% and are predominantly from the Middle Iron Age period (defined by the blue circle in Fig. 4.23). The English examples come from Meare East, Meare Lake Village and Glastonbury (Henderson 1987b, 170–82; 1995, 155–60); there are also four from Twyn y Gaer, and three from Ballacagen on the Isle of Man; the two Late Iron Age beads from Scotland are both Guido Class 8 beads from Glenluce (Guido 1978, 73–6). An equally, if not more significant pattern can be seen between Middle Iron Age and Late Iron Age yellow glass when manganese oxide/iron oxide is plotted against magnesia/potash (Fig 4.24). There are relatively consistent amounts of magnesia/potash for Late Iron Age glass; this is much more variable for Middle Iron Age yellow glass. However, in contrast, Middle Iron Age glass mostly

contains no manganese/iron oxide. The Trusty's Hill glass bead fits well with this group of beads.

CLEAR GLASS SHARD

The lack of chlorine and iron oxide, and the addition of barium oxide (Table 4.12) indicate that the glass shard (SF 194), recovered from an occupation deposit (4020) in Trench 4 on the eastern side of the summit, is a modern soda-lime-silica glass.

Table 4.12 Results of the elemental analysis of glass shard (SF 194)

Na_2O	MgO	Al_2O_3	SiO_2	P_2O_5	SO_3	Cl	K_2O	CaO	TiO	MnO	Fe_2O_3	CuO	BaO	PbO
17.1	2.7	1.7	71.4	bd	0.5	bd	0.6	4.4	0.1	bd	bd	0.1	1.1	0.1

(bd = below detection level)

Table 4.13 Results of the elemental analysis of haematite cube (SF 196)

Na_2O	Al_2O_3	SiO_2	P_2O_5	SO_3	CaO	TiO	Fe_2O_3	NiO	CuO	As_2O_3	PbO
0.4	1.9	1.8	3.5	0.2	0.7	0.4	90.2	0.1	0.1	0.1	0.2

Table 4.14 Results of the elemental analysis of two red garnet fragments (SF 193 & 195)

Fmd	Na_2O	MgO	Al_2O_3	SiO_2	P_2O_5	SO_3	K_2O	CaO	TiO	Cr_2O_3	MnO	Fe_2O_3	CuO	As_2O_3
193	0.1	20	21.1	40.8	0.1	0.1	bd	4.4	0.5	2	0.4	10	0.2	1
195	0.2	19.6	20.5	40.1	bd	0.1	bd	4.7	0.7	2	0.4	11.2	0.3	0.5

(bd = below detection level)

HAEMATITE CUBE

Results indicate the substance of this small red cube (SF 196) is haematite (Table 4.13), which can occur in a dull to bright rust-red colour with either an earthy (red ochre) or a metallic luster. Although it is predominantly composed of ferric oxide (Fe_20_3), it also commonly contains minor amounts of other elements such as titanium and aluminium. This was recovered from the construction layer (5017) in Trench 5 on the western side of the summit.

RED PYROPE GARNET FRAGMENTS

Elemental analysis reveals these two translucent red fragments (SF 193 & 195), recovered from construction layer (4016) and dark soil deposit (4007) respectively, are two small red pyrope garnets (Table 4.14); these have a general formula of $Mg_3Al_2(SiO_4)_3$, although magnesium ions can be replaced by iron and calcium ions. The addition of 1.5–2.5% chromium oxide results in a red rather than a violet colour. The composition of these two pieces closely resembles Bohemian garnets analysed by Seifert and Vrána (2005).

Alice Blackwell

Garnets feature widely in Anglo-Saxon ornamental metalwork, and the presence of two fragments at Trusty's Hill may be a further indicator of contact with the Anglo-Saxon world. However, garnetiferous rock occurs locally and tiny fragments can be introduced through the utilisation of stone objects such as querns. At present, elemental analysis of local sources of garnet is unavailable and so it remains possible that these tiny fragments are from a native rather than imported source. Further analysis of the fragments is planned in collaboration with Römisch-Germanisches Zentralmuseum für Archäologie (Mainz) as part of a research project to reassess the identification of garnet sources in early medieval Europe.

Chapter 5

Environmental evidence

Animal bone

Karen Deighton

A total of 4.2 kg of animal bone was collected by hand during the excavation at Trusty's Hill. This material was analysed to aid the understanding of the site's economy. The material was sorted into recordable and non-recordable fragments. Identification of large mammals was aided by Schmid (1972) and the Max Planck Institute. Prummel (1987) was consulted for neonates of the major domesticates. Quantification followed Halstead (1985) after Watson (1979) and used minimum anatomical element. The following were recorded for each element: context, anatomical element, taxa, proximal fusion, and distal fusion, side, preservation, fragmentation, modification, butchery evidence and sex (where appropriate). Vertebra and ribs (with articulating ends) were counted and noted as small or large ungulate but not included in quantification as their multiple numbers introduce bias. Recording of fusion followed Silver (1969). Cattle teeth were aged after Halstead (1985) and pig teeth after Bull and Payne (1982). Recognition and recording of butchery followed Binford (1981). Recording of sexing data for pigs followed von den Driesch (1976). Pathology was described after Baker and Bothwell (1980).

Table 5.1 Summary of taxa present

Taxa	*Rock-cut basin (Trench 2)*	*Summit (Trenches 4 & 5)*
Horse		1
Cattle	1	68
Sheep/goat	2	8
Pig		20
Large ungulate	1	18
Small ungulate	1	16

Total	*5*	*131*

Table 5.2 Taxa by element for Trench 2 (total 5)

Element	*Cow*	*Sheep/goat*
Proximal radius	1	1
Distal radius	1	1
Tooth	1	
Total	3	2
Relative percentage	*60*	*40*

The results are set out in Tables 5.1–5.4. The assemblage was limited to the major domesticates and dominated by cattle. Much of the faunal assemblage was recovered from the occupation deposits (4008 & 4020), construction layer (4016), rampart core (4004) and dark soil deposits (4007 & 4011), interior structure collapse (4005), collapsed rampart face (4010) and backfill deposits (4002, 4003, 4006, 4009, 4012–4014) in Trench 4 on the eastern side of the summit. The construction layer (5017), rampart core (5002, 5005, 5012, 5018 & 5022), collapsed rampart face (5010/5011), dark soil deposit (5014), rampart collapse (5007) and backfill deposit (5003) in Trench 5 on the western side of the summit yielded the bulk of the remainder of the faunal bone assemblage. Only a very limited number of faunal bones were recovered from the primary fill (2007) and backfill (2005) of the rock-cut basin in Trench 2 near the entranceway.

Table 5.3 Taxa by element for Trenches 4 and 5 (total 99)

Element	*Horse*	*Cattle*	*Sheep/goat*	*Pig*
Scapula		1	1	
Proximal humerus		2		3
Distal humerus		5		5
Proximal radius		2		1
Distal radius		6		
Ulna		2	1	
Proximal metacarpal		2		
Distal metacarpal		3		
Pelvis		2		1
Proximal femur		5	1	2
Distal femur		2	1	1
Proximal tibia		5	2	
Distal tibia		5	2	1
Calcaneum		1		
Proximal metatarsal		4		
Distal metatarsal		2		
Phalanx 1		1	2	
Phalanx 2		2		
mandible				1
Tooth	1	16		5
Total	1	68	10	20
Relative Percentage	*1*	*69*	*10*	*20*

Table 5.4 Ribs and vertebra

Element	*Rock-cut basin (Trench 2)*	*Summit (Trenches 4 & 5)*
Large rib	1	13
Large vertebra		4
Total large ungulate	*1*	*17*
Small rib	1	16
Small vertebra		1
Total small ungulate	*1*	*17*

Fragmentation was heavy with 29% of bone fragments falling into the splinter or end plus splinter category (Table 5.5). This could be the result of heavy handed butchery techniques, trampling or compaction within the burial matrix. Eight fresh breaks were also noted.

Abrasion of bone surfaces was high possibly due to soil action or weathering due a period of exposure above ground (Table 5.6). The frequency of canid gnawing was high at 29.6% (noted on 29 bone elements) which not only suggests the presence of dogs/foxes at site but again also indicates that the bone was left exposed *(e.g.* in open middens) before its final deposition. It should also be noted that such a high level of gnawing could possibly have introduced a preservation bias away from the smaller bones and smaller taxa as well as away from neonatal/juvenile bones (Payne & Munson 1985). More subtle evidence of butchery could also have been obscured. Evidence for butchery, in fact, was low, which could be due to obscuring by post taphonomic processes (such as canid gnawing), but where evident was consistent with chopping.

The frequency of evidence for burning was moderate at 16% of identified fragments. A further 899 indeterminate calcined fragments (weight 381 g) were noted, which made up 40% of the assemblage. Calcining suggests temperatures above 1000 degrees centigrade.

Table 5.5 Fragmentation by faunal bone element

	Rock-cut basin (Trench 2)	*Summit (Trenches 4 & 5)*
Whole	2	4
Some shaft missing		6
End plus shaft		5
Cylinder		6
Splinter		13
End plus splinter	1	13
Fresh break		8

Table 5.6 Abrasion of faunal bone elements

Taxa	*Rock-cut basin (Trench 2)*	*Summit (Trenches 4 & 5)*
Canid gnawing	1	18
Burning	1	28
Butchery	0	4

Table 5.7 Tooth eruption and wear

Context	*Taxa*	*Element*	*Side*	*Age category*
4006	Cattle	mandible	right	Young adult
4006	Pig	mandible	left	4–6 months
4009	pig	mandible	left	4–6 months

Sources of evidence for ageing faunal remains consist of epiphyseal fusion, tooth eruption and wear and the presence of neonatal/juvenile bone. For Trusty's Hill all three sources were sparse. Only three check tooth rows were available for analysis of tooth eruption and wear (Table 5.7). A number of worn cattle first/second mandibular molars were present but these could not be attributed to a single wear stage. Only five possible juvenile bone elements (two cattle bone elements and three pig bone elements) were noted and most long bones fell into the fusion indeterminate categories. Consequently no kill-off patterns could be discerned. Evidence for sexing was limited to a single male pig canine and was also therefore inconclusive. Unfortunately no bones were complete enough for measurements to be taken, nor were any pathologies evident. Comparisons between the assemblages from the rock-cut basin and summit trenches are tentative due to the small size of the assemblage but no change in the dominant taxa can be discerned.

Comparisons between the Trusty's Hill assemblage and assemblages from other sites are also tentative due to the paucity of material available and its poor preservation. However Trusty's Hill seems to fit a pattern for the dominance of cattle, followed by pig seen at Buckquoy (Noddle 1977, 208), Dundurn (Alcock *et al.* 1989, 222), Dunollie (Hodgson & Jones 1987), the Mote of Mark (Bourdillon 2006, 134–5) and Dunadd (Noddle 2000, 226). However, all the above mentioned sites also show a greater reliance on sheep/goat than is seen at Trusty's Hill. Data for butchery is sparse from most sites, but as suggested at Trusty's Hill, also appears to have been heavy handed at Buckquoy and Dunollie. A sizeable quantity of calcined bone (7354 g) was also noted at Dunadd, which was attributed to deliberate burning as a fuel source for metal working, waste disposal or as a method of keeping fires burning at a low level to avoid the need for rekindling (Wysocki 2000, 229).

An incomplete picture of the animal economy is available due to the nature of preservation at the site, but analysis does suggest a reliance on the major domesticates and has similarities in this respect with contemporary sites. Furthermore, dominance of cattle and the use of

heavy handed butchery techniques are also prevalent.

Soil micromorphology

Laura Hamlet

Soil/sediment samples were recovered from Trusty's Hill using Kubiëna tins for thin-section micromorphology. This microscope based investigative technique can provide a detailed consideration of finer discrete stratigraphies which are not always visible in the field such as burning, construction and domestic or agricultural activities *(e.g.* Simpson *et al.* 1999; 2003; 2011). Understanding how archaeological contexts have formed is considered potentially very significant to understanding occupation of a site. A Kubiëna tin sample (051) was taken at the intersection of contexts (4007 & 4003) related to the destruction of the ramparts in Trench 4 on the eastern side of the summit (see Fig. 2.6). Another Kubiëna tin sample (052) was taken from the construction layer (5017) in Trench 5 on the western side of the summit (see Fig. 2.13). A monolith block sample (050) was also taken from the intersection of rock-cut ditch fill (6002) and natural subsoil (6004) in Trench 6 on the northern side of the site (see Fig. 2.20), but the subsequent extraction of a Kubiëna tin sample from this in the laboratory was not successful.

Manufacture of thin-sections from Kubiëna tin samples was carried out using the following method: all water was removed from the samples by acetone exchange, the samples were then impregnated using polyester 'crystic resin type 17449' and the catalyst Q17447 (methyl ketone peroxide, 50% solution in phthalate). The mixture was thinned with acetone and a standard composition of 180 ml resin, 1.8 ml catalyst and 25 ml acetone used for each Kubiëna tin. An accelerator was used and the samples were impregnated under vacuum to ensure complete outgassing of the soil. The impregnated soils were cured, culminating with a period in a 40˚C oven. Resin impregnated soils were sliced, bonded to a glass slide and precision lapped to 30μm thickness, and cover slipped to complete the manufacture of the thin section.

By following procedures laid out in the International Handbook for Thin Section Description (Bullock *et al.* 1985) and the most recent methods of Stoops (2003), soil properties were recorded semi-quantitatively on a standard table designed to work alongside research objectives, and adapted specifically for each context. The thin sections were analysed using Olympus BX-50 and Olympus BH2-RFL

petrological microscopes at a range of magnifications (×10–×400) and with several different light sources including UV for phosphorous detection. Plane polarised light (PPL), crossed polarized light (XPL) and oblique incident light (OIL) each allow identification of specific microscopic features, such as, mineral and organic components, pedofeatures and fuel residues. Interpretation of the observed features rests on accumulated evidence (Courty *et al.* 1989; FitzPatrick 1993; McKenna & Simpson 2011).

Past work has demonstrated that thin section micromorphology can illustrate the processes involved in deposition, pedogenesis, parent material and any changes incurred thereafter which may include environmental, climatic or anthropogenically triggered events.

Results

Sample 051 was recovered from the intersection of rampart collapse (4003) and dark soil (4007; see Fig. 2.6). In thin section there was a single microstratigraphic unit (Fig. 5.1; Table 5.8) with a granular microstructure composed of sub-angular aggregates which each exhibited an open porphyric coarse fine related distribution. Larger coarse fragments of rock and charcoal coated in fine organomineral were chitonic and were unsorted. Within the aggregates of fine material however, coarse minerals were actually well sorted. The total coarse mineral component of the slide was comprised of quartz (5–10%), greywacke fragments (10–15%), siltstone fragments (15–20%) and mica (<1%); of these, 5–10% are rubified indicating heating. A single turf fragment present near the bottom of the slide was rubified and may represent a ground fire or domestic fuel residues. The fine fabric was very dark brown and black organo mineral in PPL, which hues dark brown in OIL. The majority of the granular aggregates were composed of the dark brown-black organo mineral fine fabric and contained large charcoal fragments (5–10%), well decomposed plant material (1–2%) (including amorphous yellow fine material interpreted as plant derived, 1–2%) and phytoliths (<1%). There were also bone fragments present, either burned with medium intensity (1–2%), high intensity (<1%) (Hanson & Cain 2007) and low intensity or unburned with good preservation evidenced by strong interference colours in XPL (Karkanas & Goldberg 2010). Several of the larger aggregates exhibited a subtle change in colouration of the fine fabric from one end to the other (Fig. 5.2). In these discrete areas the colour was lighter brown and contained charcoal (smaller fragments than in the darker areas), clay aggregates (<1%) and well decomposed plant material but no bone. One aggregate which

contains this colour shift is oriented in the opposite direction to the others, suggesting the possibility that the profile had been disturbed at some point, a hypothesis further supported by the granular microstructure and the presence of sandy (<1%) and dusty (<1%) clay pedofeatures throughout the slide. The three different types of infill/coating clay pedofeatures indicate three phases of disturbance; as these were not orientated clays, it may be of note that reworking of the soil either by digging or ploughing is often interpreted from these types of features (Adderly *et al.* 2010).

Fig. 5.1. Sample 051 thin-section scan showing a granular structure and a single microstratigraphic unit

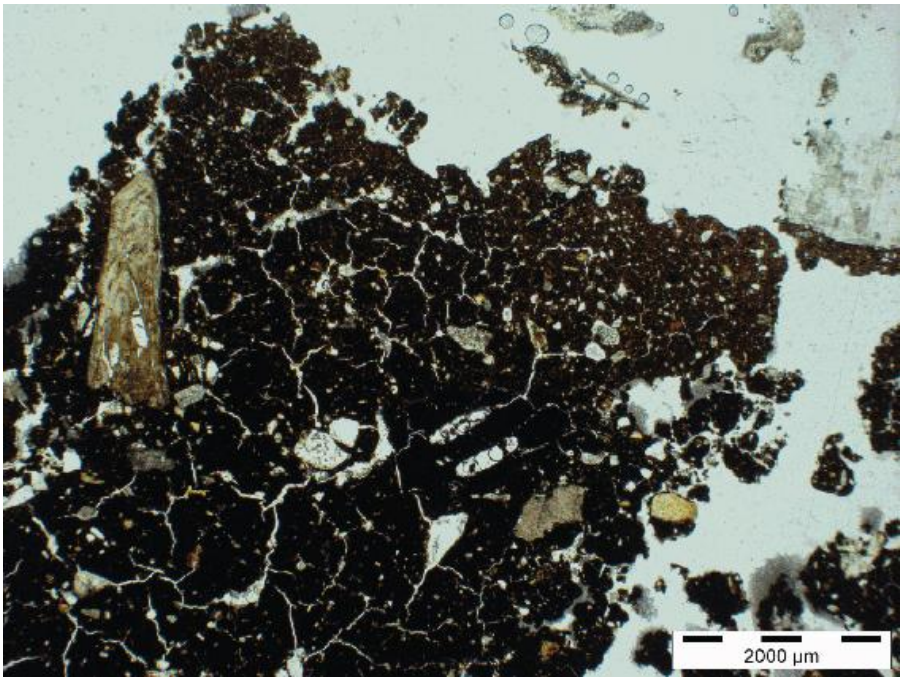


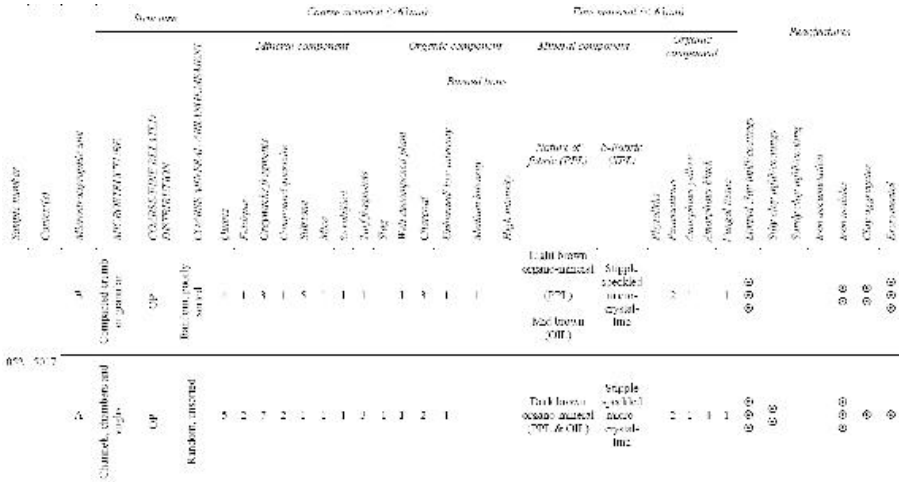
Fig. 5.2. Sample 051: aggregate of fine material exhibiting sub angular blocky separation; note the subtle difference in colouration near the top (PPL)

Table 5.8 Results of thin section analysis Sample 051 from Trench 4

Structure						Coarse material (>125µm)												Fine material (<125µm)						Pedofeatures			
						Mineral components						Organic components						Mineral components			Organic components						
						Burned bone																					
Sample number	Context(s)	Micromorphological unit	MACROSCOPIC FEATURES	COARSE/FINE MATERIAL ARRANGEMENT		Quartz	Coarse sand/mud	Silt/clay aggregate	Mica	Silt infill	Clay fragments	Iron oxide/hydroxide	Charcoal	Carbonised wood fragments	Microcrystalline carbonate	Organic matter		Matrix of fabric (PPL)	Matrix of fabric (XPL)	Plant tissue	Amorphous humic	Decomposed humic	Clay/clay fabric/cutan	Biotic excrement/fecal	Sandy/silty infill	Iron concretions	Clay aggregates
001	002 (top)	Single	Ochraceous and sub angular blocky	Open porphyric to Chitonic	Reduced, unsorted	1	5	5	1	2	2	1	1	2	1			Very dark brown-black organic material (PPL: Dark brown to black)	Speckled micro-crystallitic	1	2	1		◉	◉	◉◉◉	◉

Frequency class refers to the appropriate area of section (from Bullock *et al.* 1985):
1 = (<1%) 2 = 1–2% 3 = 2–5% 4 = 5–10% 5 = 10–15% 6 = 15–20% 7 = 20–15%
Frequency class for textual pedofeatures:
t = trace (<1%) ◉ = Rare (1–2%) ◉◉ = Occasional (2–5%) ◉◉◉ = Many (5–10%)

Table 5.9 Results of thin-section analysis Sample 052 from Trench 5



Frequency class refers to the appropriate area of section (from Bullock et al., 1985): 1 = (<1%) 2 = 1–2% 3 = 2–5% 4 = 5–10% 5 = 10–15% 6 = 15–20% 7 = 20–25% 8 = 25 – 30%

Frequency class for textual pedofeatures:

t = trace (<1%) ◉ = Rare (1–2%) ◉◉ = Occasional (2–5%) ◉◉◉ = Many (5–10%)

Fig. 5.3. Sample 052 thin section scan demonstrating microstratigraphic units

Sample 052 was recovered from construction layer (5017; see Fig. 2.13). In thin section there were two micro-stratigraphic units labelled A (lower) and B (upper; see Fig. 5.3; Table 5.9); the boundary between these two units was very subtle and bioturbation evidence by channels, vughs and excremental pedofeatures is likely to have caused blending. Unit A was characterised by dark brown organo-mineral fine material which contained channels, chambers and vughs but also an

open porphyric coarse and fine related distribution (Fig. 5.4) demonstrating the compact nature of the sediment. The random distributed, unsorted coarse mineral constituents were as follows: quartz (10–15%), feldspar (1–2%), greywacke (20–25%), compound quartzite (1–2%), siltstone (<1%) and mica (<1%). Of these <1% exhibit rubification in OIL. Clayey turf fragments (2-5%) were also present and a piece of slag or clinker (<1%) (Fig. 5.5). The coarse organic components were well decomposed plant remains (<1%), wood charcoal (2–5%) and unburned or low intensity burnt bone (<1%). The fine mineral material demonstrated weathering of the coarse minerals as it was stipplespeckled microcrystallitic and randomly distributed. The fine organic components were punctuations of black material (1–2%) with the morphology of grass charcoal (Umbanhower & McGrath 1998), amorphous auto-fluorescent yellow matter (<1%) which is interpreted as plant derived and amorphous black, probably carbon derived material (5–10). There was also fungal tissue (<1%) present. The many Fe rich limpid clay aggregates (<1%) and infill/coating pedofeatures (5–10%) demonstrate both low energy down profile movement with water percolation and allocthonous inclusion or excremental reworking. Dusty clay infill/coating pedofeatures contributed 2–5% of the unit evidencing a period of slightly higher energy down profile clay illuviation. Iron nodules (5–10%) were anorthic and had not formed in situ indicating sediment formation via dumping of material from an iron rich context.

Unit B was distinguished via a lighter brown colouration of organo-mineral fine material than that exhibited in unit A. The microstructure was also slightly less compact and formed crumb or granular aggregates of fine material which had become homogenized to form an open porphyric coarse-fine related distribution pattern (Fig. 5.6). The coarse mineral components were poorly sorted and randomly distributed to comprise the following: quartz (5–10%), %), feldspar (<1%), greywacke (2–5%), compound quartzite (<1%), siltstone (10-15%) and mica (<1%). Of these coarse minerals <1% were rubified. There was a trace of fragmented turf (<1%) which was distinguished by its redder colouration and so interpreted as coming from a more Fe rich soil profile. Coarse organic constituents were well decomposed plant stems/roots (<1%), charcoal (1–2%) and unburned or low intensity burnt bone fragments (<1%). The b-fabric continued to exhibit a randomly distributed stipple speckled micro crystallitic nature. Fine organic punctuations were present, some with the micromorphology of wood charcoal (Umbanhower & McGrath 1998), as were yellow plant derived amorphous matter (<1%) and fungal

tissue (<1%). The same limpid clay infill/ coating pedofeatures were present as in unit A, demonstrating this material had percolated down from higher up the profile. Iron nodules (2–5%) were orthic and had formed in situ but the occasional clay aggregates (2–5%) were sub rounded and the internal silty particle fraction was un-orientated indicating these features had probably not formed *in situ*.

Discussion

Thin-section micromorphological evidence from Sample 051 from Trench 4 indicates this was a disturbed soil profile. The subtle colouration change noted in some of the aggregates described above suggests the survival of a sediment characterised by a dark matrix with anthropic inputs, suggesting that this sample derived solely from the lower dark soil (4007) of the context intersection, which was probably due to difficulties in extracting an intact sample from the excavation trench section (Toolis *pers. comm.)*. In soil micromorphology very dark brown to black colouration is usually attributed to the presence of either Fe or Mn oxihydrates (Stoops 2003). Although iron accumulation is often seen in domestic contexts within floor surfaces (Gé *et al.* 1993) it results from iron reduction and subsequent mobilisation (Lindbo *et al.* 2010) which is indicative of a wet environment. The anthropogenic inputs are mostly unburned bone fragments or fragments which have been subjected to low intensity burning which suggests domestic origins and so midden material. The single burned turf fragment may represent a ground fire or domestic fuel residues. Although the sediment had clearly been destabilised, evidenced by the loss of structure and rubification of some coarse minerals, these were randomly distributed across the slide and unburned bone fragments were well represented. These factors together with a lack of rubification of the fine fabric leads to the summation that *in situ* burning was not suspected.

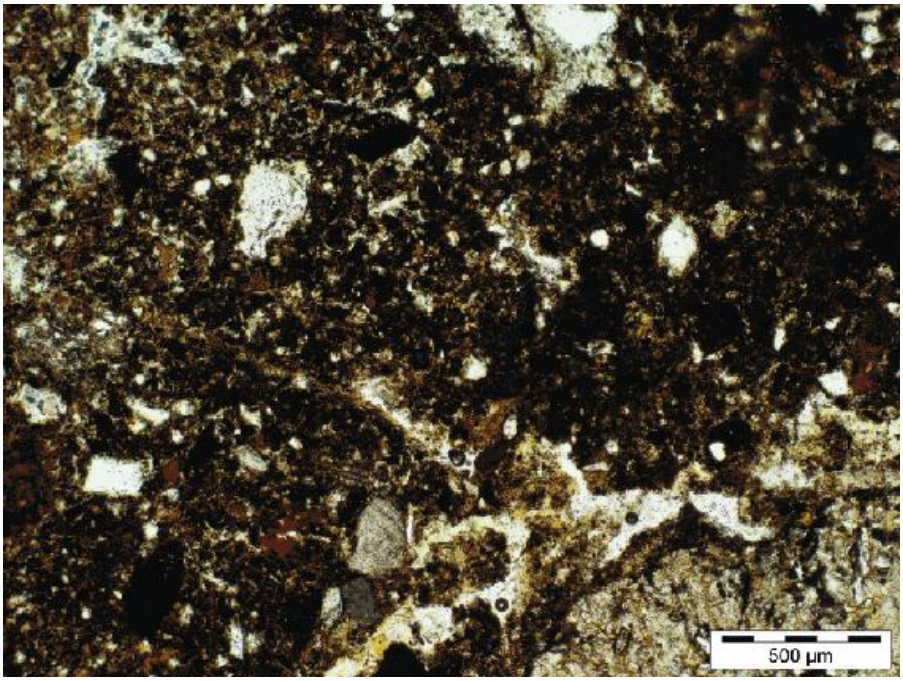


Fig. 5.4. Sample 052 groundmass unit A (PPL)

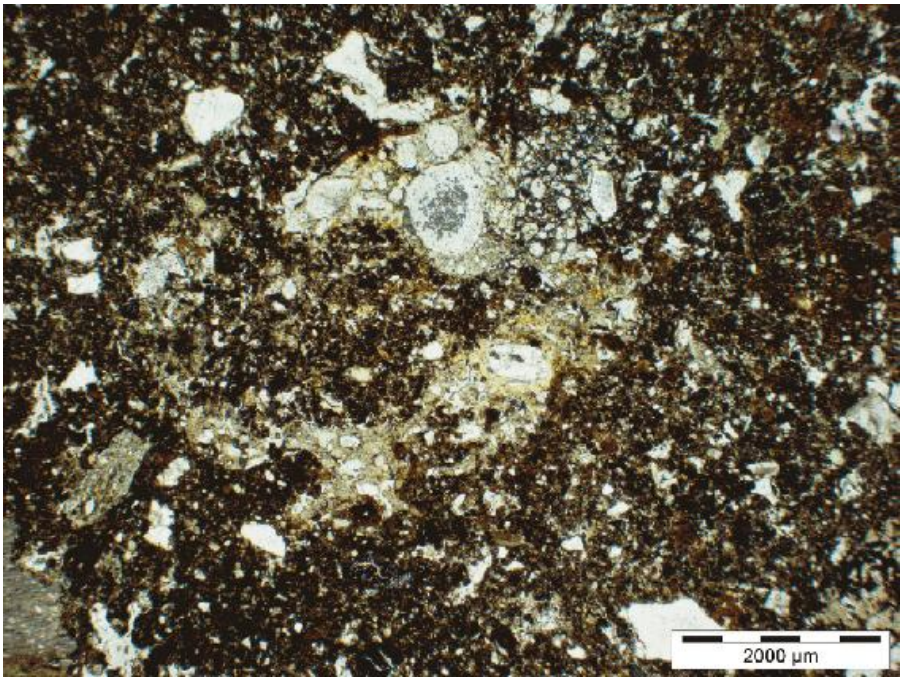


Fig. 5.5. Sample 052 slag or clinker in unit A (PPL)

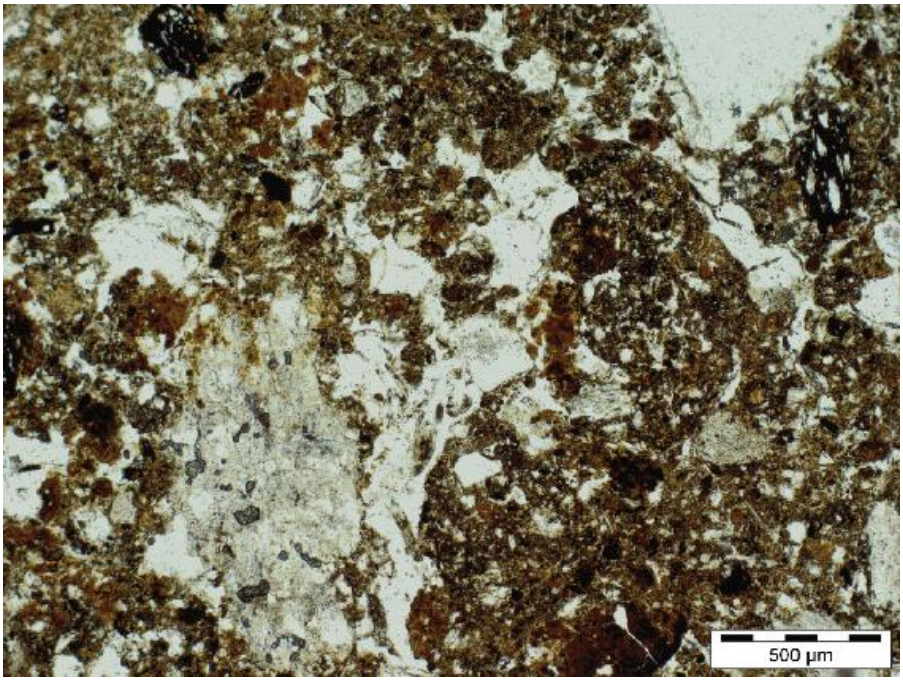


Fig. 5.6. Sample 052 groundmass unit B (PPL)

The thin-section analysis for soil micromorphology found two microstratigraphic units in Sample 052 from Trench 5, representing two phases of sediment formation for context 5017. The earliest comprised anthropic sediments, clay aggregates, turf and coarse minerals in a fine matrix of dark organo-mineral fine material. The field interpretation of a construction layer is supported by the micromorphological analysis which also indicates the source of the construction material was an area of occupation. The construction materials in thin-section do not exhibit high densities of either phytoliths or organic matter which indicates that top soils and sub soils were preferred over O horizons. Clay aggregates and turf fragments demonstrate constructional material was also mixed with soil from Fe rich clayey turf and rock fragments derived from the local geology. The later micro-stratigraphic unit appeared to be cut into the earlier unit but contained excrements of soil meso-fauna which had mixed the boundary. There were less anthropic derived sediments in this unit indicating increased use of soil derived materials and a decrease in anthropic sediment derived materials, rock fragments were also less well represented. Clay illuviation was present throughout the slide, indicating disturbance further up the profile. Such features have been recorded in soil profiles that have been disturbed mechanically (such as by ard or hoe) and so it is suggested that a wet environment

(evidenced by down profile movement and *in situ* iron nodules) and quite heavy sediment disturbance further up the profile is a possible origin for these features in this context (Adderley *et al.* 2010; McKenzie 2006).

Conclusions

Although clearly reworked, the sediment (4007) seen in the aggregates in Sample 051 from the eastern side of the summit were composed of well compacted material. They also contained plant root and stem fragments which indicate a stable and vegetated environment. Given the evidence, it seems likely that this sediment was an active, trampled and wet lightly vegetated occupied land surface. A later accumulation of sediment may be evidenced by lighter coloured discrete areas in some of the aggregates. This contained fewer anthropic inputs and also became vegetated. Interpretation is limited by the poor representation of this material in the sample and so evidence of an occupational floor/ ground surface is absent. The destabilisation of the soil structure does not appear to have been caused by a natural event and so rapid collapse is more likely. *In situ* burning was not evidenced in Sample 051.

Construction materials (5017) represented in Sample 052, from the western side of the summit, were sourced from both anthropic and natural sediments. Such mixing evidences a deliberate dump of materials which contained enough organic material to make it attractive to soil meso-fauna. The accumulation therefore was rapid and trampling was not evidenced, indicating anthropic material was not trampled in incidentally but imported deliberately and mixed with rock fragments, clayey turf and sub/top soil from an area of soil which had been subject to wetting and drying. Post-deposition, some heavy reworking of sediment higher up the profile than represented in the slide was evidenced by clay pedofeatures.

Archaeobotanical remains

Susan Ramsay

A programme of bulk sampling was undertaken in order to examine the carbonised and waterlogged archaeobotanical remains recovered from Trusty's Hill. In addition, numerous spot finds of charcoal and wood were also recovered during the excavations. Twenty-eight bulk samples and 26 spot finds were analysed for the presence of carbonised remains. In addition, four bulk samples from the primary

fill (2007) of the rock-cut basin in Trench 2 were analysed for the presence of waterlogged remains and wood from seven spot finds also from this context were also identified. The bulk carbonised samples were processed by flotation or wet sieving, using standard methods and sieves of mesh diameter 1 mm and 500 μm for flots and 2 mm for retents from flotation. A 500 ml subsample from each of the bulk waterlogged samples was wet sieved through sieves of mesh diameter 1 mm and 500 μm. The waterlogged wood spot finds were gently washed in water to remove any clay and silt that was still adhering to them.

For the carbonised bulk samples, dried flots and sorted retents were examined using a binocular microscope at variable magnifications of ×4–×45. For each sample, estimation of the total volume of carbonised material >2 mm and >4 mm was made and modern contaminants were scored using a scale of 1–3 + marks. For each sample, all charcoal fragments >4 mm were identified, together with any carbonised seeds or other plant macrofossils present within the samples. In terms of the charcoal spot finds, all fragments of charcoal >4 mm in the spot find were identified. The test characteristics of small seeds and the internal anatomical features of all charcoal fragments were further identified at ×200 magnification using the reflected light of a metallurgical microscope.

For the waterlogged bulk samples, the >1 mm and >500 μm retents were scanned at magnifications of ×4–×45 and all seeds and other identifiable material removed for final analysis and identification. As the fragments of wood present in these samples were so numerous, only a representative number were fully identified. Wood from the bulk waterlogged samples and spot finds was first measured, the presence of any cut marks noted and any other notable features described. Fragments with cut marks were also photographed.

Reference was made to Schweingruber (1990) and Cappers *et al.* (2006) to aid identifications. Vascular plant nomenclature follows Stace (1997) except for cereals, which conform to the genetic classification of Zohary and Hopf (2000).

Results

ROCK-CUT BASIN

Trench 2 was located at the north-east side of the entranceway to the hillfort (see Fig. 2.1). The main feature within this trench was a rock-cut basin [2008]. The primary fill (2007) of this basin was the only context examined for the presence of archaeobotanical remains from Trench 2. In total, four waterlogged bulk samples and seven spot finds

of wood (SF 071–073, 116, 119, 121 & 177) were analysed and identified from context (2007). The results are shown in Tables 5.10 and 5.11.

Table 5.10 Botanical remains from waterlogged bulk samples in Trench 2

	Description	*Primary fill of rock-cut basin 2008*			
	Context	*2007*	*2007*	*2007*	*2007*
	Sample	*23*	*31*	*36*	*48*
Wood					
Corylus	hazel	5 (roundwood)	4 (roundwood) 5 (small frags)	8 (roundwood) 12 (small frags)	7 (roundwood) 13 (small frags)
cf *Corylus*	cf hazel	4 (small twigs)		1 (small frag.)	19 (small twigs)
Quercus	oak	–	2 (flat frag. cut marks) 2 (small frag)	3 (small frags)	–
Salix	willow	–	2 (roundwood) 2 (flat frag., cut marks) 1 (flat frag., no cut marks) 1 (small frag.)	–	–
inder bark		1	1		
indet small twigs		–	–	8	–
inder thorn				2	
wood fragments		+ + + +	+ + + +	+ + + +	+ + + +
Charcoal					
Corylus	hazel	4		2	
Quercus	oak	3	–	2	–
Seeds					
Carex (bicarinate)	sedge	1	–	–	–
Carex (trigonous)	sedge	–	1	1	2
Chenopodium album	fat-hen		1	2	1
Chenopodium cf *bonus henricus*	Good King Henry	–	–	–	1
Cirsium sp	thistle	1	1		1
Corylus avellana nutshell frags	hazel nutshell frags	5	4	3	4
Galeopsis tetrahit sl	common hemp-nettle	7	13	13	26
cf *Knautia arvensis*	cf field scabious	–	1	–	–
Linum usitatissimum	cultivated flax	–	–	1	–
Persicaria maculosa	redshank		1	3	8
Poaceae	grass	–	–	1	–
Potentilla sp	cinquefoil	2			5
Ranunculus acris type	meadow buttercup	2		6	4
Rubus fruticosus	bramble			2	
Rubus idaeus	raspberry			3	
Rumex cf *acetosa*	cf common sorrel	6	5	6	9
Sonchus asper	prickly sow-thistle		1	3	1
Stellaria/*Cerastium*	stitchwort/mouse-ear	–	–	12	29
Urtica dioica	common nettle	>200	>200	>200	>200
Torilis japonica	upright hedge-parsley	1	–	–	–
Viola sp	violet	1	–	–	1
Indet	indet	1	–	–	–
Misc					
Fern pinnae		–	1	18	14
Moss stems		1	1	1	
Caddis larva case		5	–	–	1
Insect remains			1		
Fucoid seaweed (earth)				1	

The waterlogged bulk samples contained similar botanical assemblages. All contained abundant small fragments of wood, in addition to larger pieces of wood and these were considered in conjunction with the spot finds of wood also recovered from (2007). The wood was mainly hazel, with some oak and a small amount of willow also present. The majority of the hazel was in the form of roundwood, ranging from small twigs to larger fragments up to 30 mm in diameter. Almost all of the hazel showed no evidence of working, with only one fragment (SF 116) showing a diagonal cut mark at one end. The pieces of oak wood identified tended to be either small fragments of flat planks or square sectioned stakes. The majority of the oak fragments showed some evidence for working in the form of cut marks at the ends. Willow wood was only recorded

from one of the bulk samples, with small sections of flat 'planks' and some roundwood also recorded. There were no obvious cut marks on the willow fragments. The wood remains suggest that some form of wattle structure may have been present, with oak stakes and possibly hazel poles providing the uprights with hazel and possibly split willow woven between them. A fragment of hazel wood (SF 121) provided a calibrated AMS radiocarbon date of AD 661–773 (SUERC-41590).

Table 5.11 Wood spot finds from Trench 2

Context	*Spot find*	*Identification & comments*
2007	71	Fragment 1: *Corylus* (115 × 30 × 20 mm) half roundwood, slightly tapered at one end but not clearly worked Fragment 2: *Corylus* (60 × 12 × 12 mm) roundwood, slight bend in middle, no working Fragment 3: *Corylus* (240 × 35 × 35 mm) large roundwood, broken into 3 fragments, no obvious cut marks
2007	72	Fragment 1: *Corylus* (95 × 20 × 15 mm) roundwood, one end broken, other end possibly eroded, no cut marks
2007	73	Fragment 1: *Corylus* (110 × 18 × 18 mm) roundwood, bark present, broken into 3 fragments, no obvious cut marks
2007	116	Fragment 1: *Corylus* (220 × 30 × 30 mm)

		large roundwood, bark present, diagonal cuts at thickest end, possible cut at thinner end
2007	119	Fragment 1: *Corylus* (30 × 13 × 13 mm) roundwood, no obvious cut marks Fragment 2: *Quercus* (70 × 25 × 20 mm) probably shaped to square section, diagonal cut at one end to form wedge shape Fragment 3: *Quercus* (45 × 25 × 25 mm) Possibly shaped to square section but cut marks not clear
2007	121	Fragment 1: *Corylus* (20 × 13 × 10 mm) roundwood, no cut marks Fragment 2: *Corylus* (30 × 20 × 5 mm) small fragment, no cut marks Fragment 3: *Corylus* (10 × 20 × 5 mm) small fragment, no cut marks Fragment 4: *Corylus* (15 × 10 × 3 mm) small fragment, no cut marks
2007	177	Fragment 1: *Quercus* (95 × 40 × 5 mm) thin 'plank' of wood with diagonal cut mark at one end

The uncarbonised seeds recovered from the bulk samples are

generally indicative of rough pasture habitats, with little evidence for species that would favour very marshy or waterlogged conditions. The abundance of nettle seeds suggests nitrogen and phosphate enrichment that might be linked with the presence of cattle or sheep in the area or with midden or latrine deposits nearby. The only indicators of standing water having been present were occasional caddis fly larva cases. The aquatic larvae of some caddis flies construct cases from silk and tiny fragments of sand and gravel for protection. They only occur in aquatic habitats, usually in water that is unpolluted, but the habitat can be very ephemeral and so these finds do not necessarily indicate permanent standing water.

There were a few traces of possible food plant remains in the waterlogged deposits. Hazel nutshell fragments were present in all four bulk samples analysed, although these may only represent a few nuts in total. In addition, there were traces of raspberry and bramble seeds and a single seed of cultivated flax. None of these species is present in sufficient quantities to suggest that they represent dumped food plant remains or sewage and they may simply derive from naturally growing plants in the area. If sewage had been present then it might be expected that traces of bran or other cereal remains would have been identified.

There is little indication in the seed assemblage to suggest what this rock-cut basin was originally used for, although the wood does suggest some form of structure or fence was present. A few fragments of charcoal were also identified, with hazel and oak both represented. However, the quantities involved were very small and may represent charcoal fragments blown in from elsewhere. A single fragment of carbonised seaweed was also present and this may be related to the seaweed found in one of the backfill deposits (4014) in Trench 4.

EASTERN SIDE OF SUMMIT

Trench 4 was located on the eastern side of the central summit of Trusty's Hill (see Fig. 2.1). The results are shown in Table 5.12. The natural subsoil (4019) produced traces of hazel and oak charcoal, suggesting that there may have been some occupation on the site prior to the construction of the earliest features that were visible during excavation. The earliest stratigraphic features within Trench 4 comprised two discrete occupation deposits (4008 & 4020) overlying the natural subsoil (4019) located along the western edge of Trench 4 (see Fig. 2.5). These contexts contained very similar carbonised assemblages, with small amounts of charcoal of hazel, ash and oak, together with traces of hazel nutshell. In addition, the southern deposit (4008) also contained traces of carbonised barley grain. Again,

this seems like material derived from the burning of structural material but with some food waste mixed in. A fragment of hazel charcoal from this same deposit (4008) provided a calibrated AMS radiocarbon date of AD 411–543 (SUERC-41596).

Cutting the natural subsoil (4019) and greywacke bedrock (4022) within Trench 4 was an irregular rock-cut linear trench or shelf [4021] partially exposed within the centre of the trench. The rock cut trench [4021] was overlain by a construction layer (4016) underlying the rampart (see Fig. 2.6). The carbonised remains from this layer (4016) included small amounts of hazel, ash and oak charcoal, together with traces of cereal grain and hazel nutshell. Although the charcoal might suggest structural remains, the cereals and nutshell indicate that hearth waste or midden material might also be present. A fragment of hazel charcoal from this same deposit (4016) provided a calibrated AMS radiocarbon date of AD 529–623 (SUERC-41597).

The rubble core of the rampart (4004) produced significant amounts of charcoal, with oak dominating but ash, hazel and willow also present. This might suggest that there was a timber framework within the rampart, which was destroyed by fire when the rampart was vitrified.

Overlying the east of deposit (4020) was the collapsed interior face of the rampart (4018) that was overlain by dark soil (4007). This deposit (4007) was rich in artefacts, particularly ones linked to metalworking, whilst the charcoal assemblage was dominated by large amounts of hazel and oak, but with significant amounts of ash charcoal also present. In addition this context contained minor amounts of alder, birch and willow charcoal, a small cereal grain assemblage of barley and oats and some hazel nutshell. Again, the charcoal assemblage was very similar to that seen elsewhere on this site, with hazel, oak and ash suggesting structural remains. However, the metalworking debris could suggest that some of this charcoal might be the remains of fuel from a furnace or forge. A fragment of hazel charcoal from the dark soil (4007) provided a calibrated AMS radiocarbon date of AD 536–646 (SUERC-41592).

West of deposit (4007) was another dark soil deposit (4011) that also contained large quantities of oak charcoal, together with smaller amounts of hazel, alder, ash, cherry type and birch. There were also traces of yew charcoal, the only incidence of this tree type on the site. A few grains of barley and fragments of hazel nutshell were also identified from this context. The dominance of oak is usually an indication of structural debris but the presence of metalworking evidence in this deposit too could indicate that this is the remains of

furnace fuel. The presence of yew charcoal is interesting but since only two fragments were recorded it may not represent deliberate burning of yew wood but just be the result of accidental incorporation of small pieces of wood as kindling. Cut through the central part of this deposit (4011) were two features containing concentrated charcoal-rich soil (4012) and (4013; see Fig. 2.9). Context (4012) contained only a small amount of oak charcoal and nothing else, but deposit (4013) produced large quantities of oak charcoal with hazel and traces of ash also present.

Overlying deposit (4011) was a spread of stone slabs (4005). The matrix between these slabs produced a charcoal assemblage that included oak, cherry type, hazel and alder, and was similar in composition to the underlying deposit (4011), perhaps incorporating some of that context. The spread of slabs (4005) was, in turn, overlain by backfilled rampart collapse (4003) which was in turn overlain by another backfill deposit (4002) of Charles Thomas' excavation. This backfill deposit (4002) also contained a large amount of charcoal but with only oak and hazel represented. A fragment of hazel charcoal from this deposit (4002) provided a calibrated AMS radiocarbon date of AD 551–646 (SUERC-41591).

Along the eastern edge of Trench 4, to the exterior of the rampart (4004), was the collapsed exterior face of the rampart (4010) which did not show evidence of burning. Within the collapsed rampart face (4010) was a backfill deposit (4014) that had a very large amount of oak charcoal, and only traces of hazel and cherry type charcoal also present. In addition traces of barley grain and hazel nutshell were also identified. The dominance of oak charcoal might suggest that it derived from oak timbers. However, the additional presence of cereals and nutshell suggests that a component of midden material might also be present. Although the large stone slabs of the collapsed rampart face (4010) showed no signs of burning themselves, the matrix between these stones contained large quantities of charcoal. This charcoal assemblage was very similar to that seen within the lens of charcoal-rich soil (4014), with very large quantities of oak, lesser quantities of alder, hazel and cherry type, together with traces of cereal and bone. Again, this could be the remains of a burnt oak timber structure, with the addition of some midden material.

Overlying collapsed rampart face (4010) at the south-east corner of Trench 4 was a backfill deposit (4009) that produced only oak and hazel charcoal, again indicating that burnt structural material was present at this location.

WESTERN SIDE OF SUMMIT

Trench 5 was located on the western side of the central summit of Trusty's Hill. One of the earliest features in Trench 5 was a rock-cut shelf [5024] that was cut into the natural subsoil (5020). The subsoil produced charcoal of hazel, ash and oak, suggesting that the remains of burnt structural material had become incorporated into this subsoil (Table 5.13). The rock-cut shelf [5024] was filled with a construction layer (5017) that contained large amounts of hazel and oak charcoal, with lesser but still significant amounts of ash charcoal also present. In addition there were traces of alder, birch and willow charcoal, together with a few barley grains and fragments of hazel nutshell. As with the contexts examined from Trench 4, this charcoal assemblage seemed to contain a high proportion of structural material. A fragment of hazel charcoal from this deposit (5017) provided a calibrated AMS radiocarbon date of 513–378 BC (SUERC-41599).

Table 5.12 Carbonised remains from Trench 4

The construction layer (5017) was cut by the base of a sub-circular post-hole [5021], with a fill (5022) that contained only slight traces of alder, hazel and oak charcoal, together with a few fragments of hazel nutshell, providing little evidence for this being the remains of a post burnt *in situ*. A fragment of alder charcoal from (5022) provided a calbrated AMS radiocarbon date of 515–381 BC (SUERC-41601), which suggests this charcoal originated from the same residual earlier Iron Age occupation as that contained in the underlying construction layer (5017).

Post-hole [5021] was largely covered by the rubble and matrix of the rampart core. The rampart matrix (5005) produced only small

amounts of oak, ash, hazel and alder charcoal but not in sufficient quantities to provide evidence for a timber component to this section of the rampart. Within the rampart core (5005) was a concentration of vitrified stones with dark brown silty sand (5018). This matrix (5018) contained mainly oak charcoal with a small amount of alder and hazel. This can be taken as more definitive evidence of structural material within the rampart that had been burnt, presumably as part of the vitrification process. A fragment of hazel charcoal from this lens (5018) provided a calibrated AMS radiocarbon date of AD 536–646 (SUERC-41600). The top lens (5002) of the rubble core (5005) was made up from large stones of greywacke that showed further signs of burning and vitrification. The charcoal assemblage from this lens (5002) was identical to that recorded from (5018) and so is thought to have originated from the same structural material.

To the east of the rock-cut shelf [5024] and the rampart core (5005/5018/5002/5012) was a further rock-cut sub-circular feature [5023], which was filled with a clay silt, gravel and packing stones (5009). However, the carbonised assemblage from this posthole fill (5009) contained only traces of alder and oak charcoal and so nothing definitive can be said about what this feature may have been used for.

Lying in the area between the rock-cut feature [5023] and the rampart core (5005), and overlying deposit (5017), was the collapsed interior face of the rampart with a dark brown silty matrix (5010/5011). Although this matrix material produced bone and slag, the charcoal assemblage was dominated by oak and hazel charcoal with only a small amount of cherry type also present. This suggests that a substantial proportion of the charcoal came from structural material rather than simply being the remains of hearth waste, although it does appear that some midden material may also have been present.

A layer of charcoal-rich dark soil (5014) overlay the collapsed rampart face (5010/5011). This layer (5014) was thought to represent occupation material but again was dominated by oak and hazel charcoal, with only traces of alder and birch also present. A single possible oat grain was the only other carbonised find from this context. A fragment of hazel charcoal from this deposit (5014) provided a calibrated AMS radiocarbon date of AD 533–643 (SUERC-41598).

The charcoal-rich layer (5014) was sealed by rampart collapse (5007), which showed evidence of burning and vitrification. Once again, the charcoal assemblage was entirely made up by fragments of hazel and oak charcoal, although in this case the hazel was by far the

dominant type present.

Discussion

The most notable finding from the analysis of the carbonised material from both Trenches 4 and 5, on the eastern and western sides of the summit respectively, was how remarkably similar the assemblages were from many of the contexts. Oak and hazel charcoal were by far the commonest types present, with ash also forming a significant part of the assemblages. Generally, this suite of charcoal types points towards the remains of structural timbers and wattle that have been destroyed by fire. It was also notable that much of this carbonised material was found in association with the vitrified ramparts and so it provides further evidence for the ramparts having a wooden, perhaps wattle, internal sub-structure when they were constructed. This wooden sub-structure would then have contributed some of the fuel that eventually allowed the vitrification of the ramparts to take place. There were often small quantities of other charcoal and midden-type waste within these rampart contexts and these may either be the remains of midden material that became incorporated into the deposits at a later stage or could be from additional packing material placed within the rampart.

The charcoal types that would normally be more associated with hearths and domestic cooking fires, such as birch and alder, were less commonly found within these assemblages. However, there is a possibility that some of the oak charcoal might indicate the presence of fuel from metalworking furnaces or forges, since oak charcoal can produce the high temperatures needed for this type of work (Gale & Cutler 2000).

Table 5.13 Carbonised remains from Trench 5

	Context Sample/Find	5202 5003, SF044	5004 044	5007 SF 612	5008 050	5010 SF 640	5011 SF 516	5014 058 SF053, SF641	5027 032, 046, 070, 028, 026, SF048, SF644	5028 025, 031	5036 SF 584	5037 048, SF646
	Description	Vitrified rampart core	Vitrified rampart core	Rampart collapse	Fill of post hole 5021	Collapsed stonier rampart face (same as 5021)	Collapsed stonier rampart face (same as 5020)	Dark soil layer	Construction layer	Vitrified rampart core	Natural subsoil	Fill of post hole 5038 within vitrified rampart
Modern roots/rootlets		1+	–	–	–	–	–	–	–	1	–	–
Vol. charcoal 2–4 mm		5ml	5ml	<2.5ml	<2.5ml	5ml	5ml	10ml	10ml	5ml	<2.5ml	<2.5ml
vol. charcoal >4 mm		25ml	5ml	25ml	<2.5ml	5ml	15ml	5ml	105ml	15ml	15ml	2.5ml
Charcoal												
Alnus	alder	2 (0.15g)	1 (0.07g)	–	1 (0.04g)	–	–	1 (0.17g)	1 (0.21g)	12 (0.55g)	–	2 (0.10g)
Betula	birch	–	–	–	–	–	–	1 (0.26g)	2 (0.64g)	–	–	–
Corylus	hazel	5 (0.74g)	3 (0.13g)	6 (5.82g)	–	5 (0.78g)	37 (11.87g)	33 (7.26g)	150 (11.29g)	2 (0.07g)	3 (0.58g)	1 (0.01g)
Fraxinus	ash	–	3 (0.16g)	–	–	–	–	–	32 (1.91g)	–	1 (0.44g)	–
Prunoideae	cherry type	–	–	–	–	–	2 (0.55g)	–	–	–	–	–
Quercus	oak	16 (5.17g)	8 (0.36g)	3 (0.31g)	1 (0.05g)	–	14 (1.21g)	67 (7.02g)	156 (13.01g)	30 (1.69g)	1 (0.25g)	1 (0.09g)
Salix	willow	–	–	–	–	–	–	–	1 (0.58g)	–	–	–
Cerealia/wild grass												
Cultivated cereals		–	–	–	–	–	–	1	–	–	–	–
cf Hordeum vulgare sl	cf hulled barley	–	–	–	–	–	–	–	2	–	–	–
Cerealia/wild grass												
Corylus avellana nutshell frags	hazel nutshell frags	–	1 (0.01g)	–	–	–	–	–	10 (0.13g)	2 (0.26g)	–	1 (0.06g)
Misc												
Daucus		–	–	–	–	–	1 (0.39g)	–	–	–	–	–

There was very little evidence for food plant remains in the contexts examined. Although cereal grain and hazel nutshell were present in many contexts, they tended to be only in trace amounts and so it is difficult to determine whether they were residual from earlier phases of occupation or represent a general scatter of midden or hearth waste across the site that had been mixed with the burnt structural debris.

The cereal assemblage, although not present in significant numbers, was dominated by barley, with traces of oats also present, but there was no evidence for wheat at Trusty's Hill. High status sites such as Edinburgh Castle tend to have wheat as a component of the cereal assemblage (Boardman & Ramsay 1997, 191–9). Wheat does not grow well in much of Scotland and so wheat grains on a site of this age may often be indicative of a traded commodity rather than a locally grown cereal (Dickson & Dickson 2000) and hence often suggest a site of higher status. Dunadd had slight traces of wheat recorded, though only in Iron Age contexts, but barley was the main cereal type present there (Milles 2000, 221–6) as at Trusty's Hill. The quantities of cereal recovered at both Edinburgh Castle and Dunadd were far greater than were recovered from Trusty's Hill. This may be because cereal processing was not being undertaken on site at Trusty's Hill, or that there was less intensive domestic occupation. It might even suggest that Trusty's Hill was only occupied intermittently and so general domestic midden material and hearth waste did not build up on site. However, as only a very small percentage (1.3%) of the site was excavated, the lack of domestic occupation debris may simply be due to the appropriate areas remaining unexcavated.

The only other carbonised remains of food plants recovered at Trusty's Hill were fragments of hazel nutshell, but again these were only small amounts and provide little evidence for hazelnuts forming a significant part of the diet.

More unusual finds from the site were small quantities of carbonised seaweed. Traces of seaweed were recorded at Edinburgh Castle, but in the Iron Age deposits (Boardman & Ramsay 1997, 191–9), and also in the carbonised assemblages from Dunadd, especially the early medieval contexts (Milles 2000, 225). It is not clear what purpose the seaweed was used for. However, seaweed does contain high concentrations of mineral salts and so can be burned to produce fertiliser. However, it may also have some use in industrial processes, as in later centuries it was used in the production of lye, glass and soap (Dickson & Dickson 2000).

The presence of a small quantity of yew charcoal within one of the dark soil deposits (4011) on the eastern side of the summit is an

unusual find as yew is a rare occurrence within carbonised assemblages from Scotland. Although only two fragments of yew charcoal were identified, it is possible that this is an indicator that yew wood was being used on the site. The most commonly known use for yew wood is for the manufacture of bows but it is also associated with death, mourning and ritual as evidenced by the presence of yew trees in graveyards (Gale & Cutler 2000). It is possible that many of these yew trees are older than the graveyards and may actually be the reason for their location. However, there is also evidence that yew wood was preferred for the manufacture of buckets and mugs, possibly because it is resistant to decay even in damp conditions (Bevan-Jones 2002). Unfortunately it is impossible to determine whether the yew charcoal at Trusty's Hill is of any special significance since the quantities involved were so small.

The waterlogged primary fill deposit (2007) of the rock-cut basin in Trench 2 is difficult to interpret. The wood remains seem to indicate that a wooden structure, made from oak, ash, hazel and willow, may have been demolished and dumped into the rock-cut basin here. Cut marks on many of the wood fragments may provide additional evidence for the tools used either to build or demolish this structure. For an area that apparently held water, though, there is little evidence for this in the uncarbonised seeds that were recovered. This might indicate that it was kept clear of vegetation when in use and so natural silting and growth of aquatic plants was prevented. However, there is also the possibility that many of these seeds may not be contemporaneous with the use of the site. As the area was excavated in the 1960s, and the basal levels were described as being like 'soupy mud', there is a concern that some of the seeds recovered from the basal deposits may be later contaminants and may explain why the seed assemblage is generally indicative of rough pasture. However, there is no suggestion that all the seeds are 'modern' but it is impossible to tell visually whether many of the seeds are just very well preserved or are later incorporations.

Many of the botanical remains from Trusty's Hill are strongly indicative of structural remains, but provide little evidence for domestic occupation on the site, either in terms of domestic hearth waste or remains of food plants. This suggests that the main areas of occupation within the site are still to be excavated.

Chapter 6

The rock carvings
Katherine Forsyth & Cynthia Thickpenny

Introduction

A series of carvings appears on a natural outcrop of greywacke to the left of the entrance to the summit citadel of the fort on Trusty's Hill (see Fig. 2.1). The outcrop faces east-north-east and presents a 'natural slab' (Stuart 1856, 31) that slopes at about 45° (Allen & Anderson 1903, ii, 478; see Fig. 2.23). The exposed surface is divided vertically by a natural fissure, giving it something of the appearance of an open book. The left hand 'page' is fairly smooth throughout its entire length but the lower part of the right hand 'page' is disrupted by a series of natural breaks and fissures (Fig. 6.1). The upper area of the face is dominated by two large images (whose maximum dimensions are height 0.61 m, width 1.08 m) – the so-called 'Pictish symbols' – but across much of its entirety it is peppered with a jumbled mass of letters, dates and doodles. In general these are much less substantial than the 'symbols' and are clearly nineteenth century graffiti, apparently the initials of sightseers (only a selection of the more substantial of these carvings are depicted on John Borland's drawing (Fig. 1.12)). In addition to the various pits, gouges and scratches in the surface (the majority of which appear to be natural), there are two long, straight, parallel, oblique lines running across the entire rock-face, from bottom-left to top-right. These, and other less distinct parallel lines to the lower right, are joint planes of geological origin and not the result of human action.

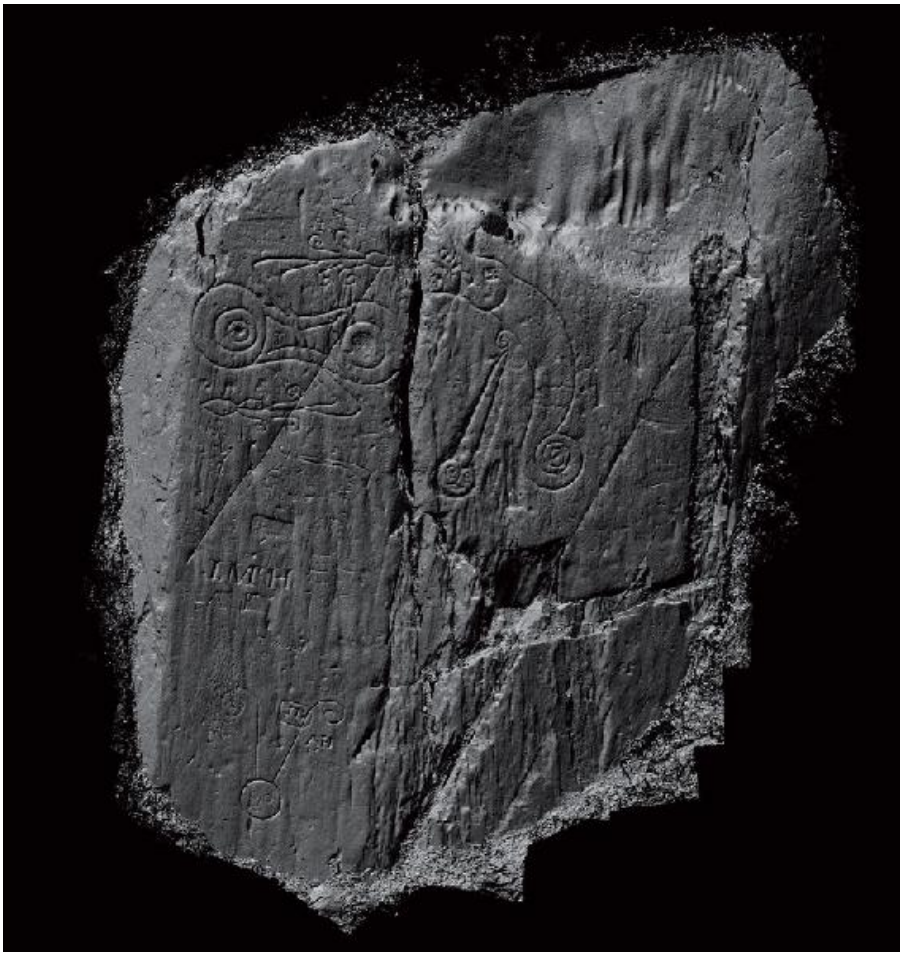


Fig. 6.1. 2012 Laser scan survey of rock carvings at Trusty's Hill. © DGNHAS/CDDV

Disregarding the graffiti, the exposed surface is carved in three areas: A = upper left, B = upper right, C = lower left. The images in areas A (a degenerate 'double-disc-and-Z-rod symbol') and B (a dragonesque beast pierced by a pointed object) are similarly carved and have a similar iconographic approach. These motifs are presented confronting each other and seem to interact and comment on each other. Clearly they are structurally a unit, despite the intervening cleavage down the stone (which may have widened in the last millennium). The image in area C, however, is carved differently from A and B and embraces different motifs. It appears to consist of secondary graffiti – perhaps derivative of the carving in A and B – cut in the eighteenth or early nineteenth century. Marks on the left edge ('arris') of the exposed block- area D – have been proposed as a possible ogham inscription (Fraser 2008, 64–5). For reasons set out below, this interpretation is not supported.

Antiquity of the carving in areas A and B

The image occupying the full width of the left-hand 'page' is immediately recognisable as a 'double-disc and Z-rod' symbol of the type commonly found on Pictish symbol stones (Fig 6.1). With more than 60 extant examples, the 'double-disc and Z-rod' is second only to the 'crescent and V-rod' symbol in its frequency (Mack 1997, 6–7). The Trusty's Hill symbol thus has many comparanda, but immediately it stands out as a little odd. To the right, at a similar scale, is a unique figure which has also been interpreted as a Pictish symbol, though this is more problematic. It takes the form of a monstrous hybrid: a powerfully jawed creature with mammalian snout and coiled serpentine tail. Although kindred creatures are known from sculpture elsewhere in Scotland, the precise form is unusual, and – uniquely – it appears to be impaled on a point or blade of some sort. The oddness of the Trusty's Hill designs, especially in the context of the probably modern horned head below, has led some to be sceptical of their authenticity. Anthony Jackson included Trusty's Hill among his list of 'dubious monuments' (1984, 37, table 2b), but as the list includes a number of unquestionably early medieval stones, such as the Burghead bulls, his doubt appears to be not over their antiquity but rather over their status as symbol stones. (Note: images of, and references to, these and all Pictish stones mentioned are to be found, under the name given, in Fraser 2008). Oram, however, was more explicitly doubtful of the age of the carvings when he suggested that 'the possibility that we are dealing with relatively modern forgeries should not be dismissed out of hand' (1993, 15). Cowan too suspected the hand of an antiquarian prankster (1991, 74, n.53). It is as well to address this possibility square-on at the outset.

Despite the doubts of previous scholars, there appears to be no physical impediment to the symbols being ancient: they do not appear to overlay any of the obviously modern carving elsewhere on the slab. A modern initial 'J' has been carved on the cross-bar of the double-disc but it does not impinge on any of its lines. Neither is the incision technique employed obviously modern, though detailed analysis of the laser scan might throw objective light on this (Kitzler-Åhfelt 2012). The Trusty's Hill carvings were first illustrated by Stuart in 1856 (see Fig. 1.4) but, as Lloyd Laing has observed (2000, 10), they must predate Stuart's drawing by some duration for him to have considered them genuine. In fact the carvings had first been noted in print more than 60 years previously when the parish minister, Hugh Gordon, mentioned them in his notes on the antiquities of the parish of Anwoth for the *First Statistical Account* (1794, 351). If the carvings

were already thought ancient then, this would project any forgery back to a period when interest in and knowledge of Pictish symbols was virtually non-existent. It is telling that the design of the carving was so unfamiliar and alien to late eighteenth century visual sensibility that not even the monster could be 'read' as anything but an abstract design. There is no recognition that there was anything 'Pictish' about them. Not until 1855 was the link with the symbols stones first recognised (Muir 1855, 33).

The earliest published reproductions of Pictish sculpture are those of Alexander Gordon in his *Itinerarium Septentrionale* of 1726 (Ritchie 1997). Although primarily interested in Roman remains, Gordon included drawings of later sculptures which he believed to be 'Danish', *i.e.* Viking (Fraser 2008, 3). Double-disc and Z-rod symbols appear on his illustrations of the Class I stone from Edderton and of the Class I and II stones from Aberlemno, which, significantly he labels: 'Obelisks with Egyptian symbols', reflecting the fact that it would be some years before the symbols were definitively linked to the Picts. In addition, while Gordon clearly conveyed basic symbol outlines and an idea of floriated rods, he failed to reproduce secondary, but equally crucial details such as the internal decoration of discs or connecting bars, or the articulation and corner decoration of Z-rods. He was no more successful in his reconstruction of interlace or other relief-carved Insular motifs. On the basis of these published drawings, no-one setting out to simulate a Pictish symbol in eighteenth century Kirkcudbrightshire could have done so with the level of accuracy displayed at Trusty's Hill on the basis of then published drawings. Further publications by Thomas Pennant in 1774 and Charles Cordiner in 1780 and 1788–95 brought Pictish sculpture to a wider audience (Fraser 2008, 3) but still their illustrations were little more accurate than Gordon's. Significantly, their appearance is too late to have inspired carvings which were already thought ancient by 1794.

Fig. 6.2. Incised horned head in area C of exposed rock surface. © DGNHAS/CDDV

The form of the Trusty's Hill symbol pair is unusual but firmly within the broader tradition of Pictish carving. It is not a copy of a specific example but a convincing blend of diverse elements, which is another factor that counts against it being an antiquarian construction. It reflects detailed knowledge and understanding of a tradition that could not have been acquired without extensive firsthand observation of a wide range of Pictish examples, something which is inconceivable before Stuart's publications in the 1850s and '60s, as his were the first volumes to approach a comprehensive and systematic catalogue of Pictish carvings. Taken together then, the early date of the published references to the Trusty's Hill carvings and, above all, the authentic detail of the design mean that we can be confident of their early medieval date *(c.f.* Craig 1992, i 197). If they are somewhat odd, it is not because they are modern.

Carving in Area C

Towards the bottom edge of the exposed face, near a cartouche containing the initials JB, is a third incised figure which consists of a firmly incised circle enclosing a group of less substantial carvings which together resemble a human face (Fig. 6.2). The two eyes are circles, between them are the two parallel lines of a nose ending in a blunt horizontal line, and adjoining that – below and a little to the left – the mouth is a short horizontal rectangle. The final element of this composition is a pair of long, diverging, antennae-like lines emitting from the top of the head, each curving outwards and terminating in a tight spiral. The form of this figure, especially the circularity of the head and eyes, is hard to parallel in early medieval Insular art. Allen and Anderson illustrated and described it without demur, implying they accepted it as early medieval (1903, 478–9) but Stuart had already suggested that it was of more recent date (1856, 31). Radford was of the opinion that 'the form is old' though it had been 'retouched in recent years' implying he thought the carving technique modern (1953, 237 n.2), which Cessford concurred with (1994, 85). Physical evidence for 'retouching', in the sense of re-carving and reenforcing an existing line, is, however, hard to see. Close examination of the incised lines shows them to be unlike those of the symbols in the upper area and closer to much of the graffiti. They may well be of similar date. While it was not possible to confirm conclusively that the right-hand antennae over-lies the frame of the cartouche containing the initials 'JB', the relative layout of the two implies that the latter was there first and thus the 'antennae' are indeed modern. Similarly a less deeply incised cartouche containing an 'M' and other characters apparently underlies the left antennae-spiral. As noted above, the outline circle of the head is more substantially carved than the other elements, raising the possibility that it might indeed be older and was augmented in the late eighteenth or early nineteenth century with the antennae and facial features, to turn it into a jokey face. Perhaps this is what Radford meant by retouching. Such an act (or indeed the carving of the entire figure in a single go) may have been inspired by a reading of the 'spike' or 'blade' image associated with the monster higher up on the slab, as suggested by Craig who also believed the lower carving to be recent (1992, i 197; ii 355). The spike too has a subcircular outline; internal decoration which could be interpreted as two staring eyes, a nose and a mouth; and, protruding from the top, two long lines (though here converging rather than diverging) which end in two tight spirals (Fig. 6.1). On balance the lower figure is, in its current form, unlikely to be early medieval in date and should be

considered separately from the 'symbols' above.

Carving in Area D

A number of short straight lines in the vicinity of the left-hand arris of the outcrop were previously recorded in a drawing (see Fig. 1.12) which was based on a rubbing (John Borland, *pers. comm.)*. It has been tentatively suggested that these might constitute the remains of a now illegible ogham inscription (Fraser 2008, 64). Although ogham inscriptions on rock faces are rare (e.g. Dunadd, Argyll (Forsyth 2000); Listowel and Camp, Co. Kerry (Okasha & Forsyth 1997, 357–60), the use of an arris for the stem-line is typical on early ogham pillars, with the letter strokes falling to either side on the adjacent faces, so such an arrangement is not implausible. Close examination of the rock surface, however, confirms that the marks are of geological origin, the result of horizontal stress fractures in the rock (Ewan Campbell, *pers. comm.)*. Although only the fractures at the arris have been highlighted in the drawing, in fact horizontal fractures of this kind spread all over the surface of the slab (see Fig. 2.21). The few nonoblique strokes shown on the drawing do not appear to be anthropogenic.

Analysis of image A: 'double-disc and Z-rod'

In order to understand both the congruence of the Trusty's Hill double-disc to the generality of Pictish examples and its deviation from the norm it is necessary to look in some detail at other examples of this symbol. It appears to comprise three elements: matched pair of discs, connecting bar between them, and floriated rod lying athwart the bar (Fig. 6.3). Each may be embellished in ways which appear to be purely decorative, but these three elements seem to be the essence of the symbol. In all but the simplest incised ('Class I') cases, discs are formed from two to three concentric rings, at the middle of which lies a small gouged dot. Sometimes these medial dots are indeed strictly central, sometimes they are off-set and lie closer to the connecting bar. When discs are formed of *two* concentric rings and a dot, the width of the rings is typically equal (as on Dyce 1 or Tullich), although occasionally the innermost ring is narrower than the outer ring (as on the Picardy Stone). When, however, discs are formed from *three* concentric rings, either the rings are of roughly equal width *(e.g.* Keith Hall, Congash 2 and Invereen) or, more usually, the outermost ring is to some degree narrower than the others and forms a rim around the edge of the disc *(e.g.* Inverurie 3, Clach Ard or Kintore 2).

In almost all cases of triple rings, the third (innermost) ring wraps tightly around the central dot. Relief-carved symbols on cross-slabs ('Class II') are typically embellished with a range of geometric ornament, often spiraliform in the case of double-discs. Although the majority of Class I double-discs have no internal decoration beyond the rings and dots described above, and the majority of Class II double-discs have spiraliform or other internal embellishment, this is not a hard-and-fast rule. There are a number of Class II double-discs which are relatively plain – triple ring, dot-and ring – even when carved in low relief *(e.g.* Golspie, Monifieth 1, Woodwrae, Meigle 6 and St Vigean's 5) which appears to confirm this as the essential form of the symbol, regardless of how elaborately it is realised.

Fig. 6.3. Incised double-disc and z-rod, and dragonesque beast and blade symbols in areas A and B of exposed rock surface. © DGNHAS/CDDV

The discs on Trusty's Hill (Fig. 6.3) are each formed of three concentric circles and a central dot, and yet they do not follow either of the two patterns outlined above for discs of this type. In contrast to Pictish Class I models, the outer 'rim' is wider in comparison with the circles within it, an impression exacerbated by the fact that the central indentation is much wider than most Pictish exemplars, which typically have small dots instead. The scale of the central cup thus disturbs the symmetry of all the rings that encircle it, making the rims around the Trusty's Hill discs look disproportionate. The closest Class I parallel occurs on Tillytarmont 2, but even here differences are

instructive. The centre of each disc (here a circle rather than a dot) is, in fact, offset inwards (*i.e.* towards the bar) which means that the two outer rings vary in width – they are widest where they are furthest from the bar, and narrow towards it. The line which separates them is, however, carefully equidistant from the outer perimeter and the innermost circle, balancing the tapering width throughout. The result is a harmonious composition which contrasts with the less controlled lines of Trusty's Hill. The lack of control on the latter is manifest in the wavering of the line, especially on the left disc (which is not strictly circular), and by the fact that the two discs are not perfectly matched: the centre of the left-hand disc is more off-set than the one on the right, giving a slightly unbalanced impression, and the contrast in width between the middle and outer rings of the left disc is greater than on the right. The cock-eyed impression is exacerbated because, as is visible on the laser-scan (Fig. 6.3), the third (inner) ring of the right-hand disc has come away entirely and only the bottom of its central dot is now visible. It is not clear whether the carver deliberately removed the ring at the outset, whether it broke off during carving the inner dot, or has been worn away subsequently. Whether intended or not, this very large central cup upsets the proportions of the right-hand disc and causes imbalance between the halves of the design. To sum up, Pictish discs are commonly characterized by the roughly equal size of their internal rings, *or* by an outer ring that forms a narrow circular rim around the disc, but the Trusty's Hill symbol shares neither of these attributes, giving it a more unbalanced appearance than is usual in Pictland. Although the form of this symbol is simple, subtle differences in the layout of the constituent elements make the difference between an elegant example and a more awkward version, suggesting the Trusty's Hill carver was unaware of these subtleties.

Turning to the second element, the central bar, the relative proportions of these vary considerably even within Class I, from the short and squat to the long and thin. Trusty's Hill falls comfortably within the normal range and is also typical in having concave sides. This impression is enhanced by the presence of the third characteristic standard to the double-disc symbol, namely an inner line along each side. In some cases these inner lines are strictly parallel with the top and bottom edges of the bar and terminate within the bar at the point where they meet the circumference of the disc *(e.g.* Fyvie 2, Newton House 2, Congash 2). More commonly they tend to start and end at the outer line then curve in towards each other in the middle, sometimes to the extent that they actually touch: the result is two

crescents, back to back. Innerlines which converge in this way often have their ends neatly tucked into the outer corners of the bar where it meets the perimeter of the discs, thus inner lines merge with the disc perimeter in a single continuous line of curve and counter-curve *(e.g.* Dyce 1). Trusty's Hill is an example of the former type, with inner lines roughly parallel with the outline of the bar, curving towards each other scarcely, if at all, and terminating within the bar where they meet the circumference of the disc. Further analysis of the range of double-disc and Z-rod symbols is required before the significance of these variations is understood. Is it a question of date? Or a regional trend? Whatever it is, the Trusty's Hill carver demonstrates familiarity with even minor details of the tradition.

A third element, the floriated rod, is the aspect of the Trusty's Hill symbol which is most divergent from Class I models. The basic Class I model comprises two parallel lines joined by an oblique cross-stroke to form a Z-shape. Although usually labelled a 'Z-rod', this is in fact a misnomer. Allen and Anderson consistently described it as a 'Z-shaped rod' (1903 *passim*) and this – or a term such as 'double-bent rod' (Goldberg 2012) or 'angular S-rod' – would be more accurate, if more cumbersome (or typographically challenging). The inner angles of each join are filled with a curved line, outlining a triangular crescent shape which itself is sometimes filled by a circle and/or dot and/or lentoid shape. Thus the angles recall a hinge or the bent fibres of split wood. There is considerable variation in the treatment of the two terminals of the rod, although Class I examples, especially early ones, maintain a clear distinction between the two ends (Goldberg, Thickpenny & Forsyth in prep.). The lower terminal is typically broad and lyre-shaped with a central bud, somewhat like an arrow-head. The upper terminal is narrow with a lentoid or pear-shaped end like a spear-head. The upper section of the rod is often embellished with a sequence of S-curved lines arranged (typically three above and two below) either side of the rod, mirroring one another in shape but off-set relative to one another. This has been likened to the fletching of an arrow but if this is a spear-shaped terminal then the lines lie in the wrong direction, curving towards rather than away from the tip. To Henderson, however, this is the 'flaming end' and the tip lies at the opposite, 'arrow' end (Henderson 1960, 50). If the rod is meant for a broken arrow or spear as many, including Thomas (1963) have assumed, then the portrayal exhibits artistic licence rather than accurate detail.

While the above holds true for most Class I stones, and certainly for the earlier ones, these conventions underwent 'considerable

breakdown' by the time of the Class II cross-slabs (Henderson 1960, 50). Most fundamentally, the basic orientation of the symbol was increasingly disregarded and some Class II stones have rods which bend in the opposite direction so that they are actually Z-shaped *(e.g.* St Vigeans 1, Meigle 7, Eassie). Trusty's Hill does not go that far, retaining the canonical orientation, but in several other respects it is aligned more closely with Class II rather than Class I examples or at the very least displays a lack of detailed knowledge of typical Class I conventions regarding rod floriations. The Trusty's Hill rod shares the 'typical Class II perversion' of having identical terminals and floriations on both upper and lower sections (Henderson 1960, 50, n.2). About a third of all Class I Z-rods on double-discs are plain, apart from their terminals (at least eight in total). The remainder of those sufficiently complete to tell (at least 16) have S-shaped embellishments on either side of the upper section of the rod only (Congash 2 as currently orientated has embellishments on the 'lower' section of its rod only but as this end has a lentoid terminal, which elsewhere is always otherwise the upper terminal on Class I, it is possible that in its current position the fragment is inverted relative to its original orientation; or that the carver of this stone, with its otherwise unique 'helmet and arrow' symbol has deliberately or accidentally inverted the doubledisc symbol). Although some Class II Z-rods also have off-set embellishments *(e.g.* Brodie, Rosemarkie, Fordoun, Strathmartine 3), it is more common that they are paired on these later stones *(e.g.* Aberlemno 3, St Vigeans 1 & 5, Meigle 7, Monifieth 1). This is a key feature aligning the Trusty's Hill rod, and its paired embellishments, with the Class II style of symbol. More than this, however, the Trusty's Hill floriations are not of the usual elegant S-shaped form *(i.e.* in pairs forming lyre-shapes) which swings outward from the rod before it curves back in toward the centreline, where it finishes with a spiralling flourish. This feature of 'outward curving' is general to all Class I floriations on a variety of rods: the floriations on the V-shaped rods which typically accompany crescent symbols often curve inwards to form a C-shape but they still have a pronounced convex curve. Trusty's Hill lacks S- or C-curves entirely (except, perhaps, for the faintest hint on a single floriation nearest the leftfacing point of the rod). Instead its floriations consist of more-or-less straight lines protruding obliquely from the rod before they terminate with separate spiral flourishes, the centres of which are formed by drilled dots, at least on the outer spirals of the upper and lower parts (Fig. 6.3). The floriations on both sections of rod point towards the tip, in the opposite direction from all other Z-rod

floriations with three exceptions: the Class I stones from Invereen and Tote in Skye and the late Class II slab Aberlemno 3. The Class I examples have off-set floriations on the upper section of rod only, but these point 'out' in contrast to all twenty of the other floriated Class I Z-rods on double-discs and the three on metalwork. Only Aberlemno 3 shares with Trusty's Hill the feature of having outward pointing floriations on both sections of rod *(i.e.* when floriations are present on both sections of rod the norm is for them to point in from both ends towards the middle of the rod: Aberlemno 3 and Trusty's Hill alone point out towards the two ends of the rod). In such matters of detail, the floriations on the Trusty's Hill rod are so unlike the rest of the corpus as to suggest a less than thorough familiarity with (or failure of memory regarding) the basic anatomy of the symbol and probably a direct model akin to Aberlemno 3.

Another obvious way in which Trusty's Hill is aligned with Class II is by having a broad rod represented in outline, rather than a slim rod formed from a single line (as is typical of Class I). The whole of the mid-section of the Trusty's Hill rod is represented in outline, as are its upper and lower portions beyond the bends, up to the points where they reach the floriations where they narrow to a single line. This hybrid linear/outline treatment of a rod is unique. Most Class I Z-rods are linear. Although there are a small number which are in outline these have further unusual features: the double-disc on Invereen is very fine and masterfully carved but is anomalous in the form of its floriations. Inverallan features an outline Z-rod over a notched-rectangle but the form of the latter - with its notches opposite one another rather than off-set suggests a late date within the Class I sequence (Henderson 1960, 52). Width is also represented on the Z-rod on Aberlemno 1 but somewhat differently from Inverallan and Invereen; the Aberlemno rod is a single incised line but one which is unusually deep and thick, with the triangular recesses at the corners tapering far along the rod before merging with it. At the point where it crosses the joining bar, the Aberlemno rod is, however, essentially linear in the wider Class I tradition.

The inspiration for the outlined rod at Trusty's Hill is perhaps more likely to have come from Class II stones, which typically feature 3-dimensional reliefcarved, and thus two-sided rods, (e.g. Aberlemno 3, Rosemarkie, Monifieth 2, Cossans, Dyce). The threedimensionality of these Class II Z-rods appears to have encouraged carvers to depict them as interweaving with the rims of the connecting bar *(e.g.* St Vigeans 1, Brodie, Elgin, Kirriemuir 2). In order to do this the connecting bar is re-conceived as two rounded horizontal strands with

a void in between, rather than a solid, flat plate. Romilly Allen's depiction of the Trusty's Hill rod implies that it interweaves with the bar in the manner of these Class II examples (Allen & Anderson 1903 ii, 478; see Fig. 1.6). A close examination of the stone, however, shows this is only partially true (Fig. 6.3). At the point where the rod crosses the upper rim of the central bar only the vertical sides of the rod are shown, which gives the impression that here the rod lies on top of the bar. In order to give the impression that the rod passes under the lower rim of the bar it would have been necessary to depict only the horizontal lines of the bar at the corresponding point below, whereas, in fact, all four lines, horizontal and vertical, are depicted, negating the impression that the rod is a three-dimensional entity at all. The mismatch between the treatments at the upper and lower rims of the bar suggests the carver has blundered in carving two extra lines at the lower crossing (whether the intention was for the rod to appear to lie over or pass under the lower rim). The carver has also failed to maintain a uniform width for the rod as it passes over the undulating rock-face. This poor control of line has resulted in a rod which is lumpy and misshapen. The portions above and below the bar are wider than the middle section and the junctions are awkwardly handled, especially at the top. John Borland's drawing gives the impression that there is a break in the left-hand line of the rod (Fraser 2008, 65; see Fig. 1.12). The laserscan, however, confirms that the left line is in fact continuous, and swoops to the side, piggy-backing on the horizontal upper line of the bar (Fig. 6.3).

The treatment of the angles of the rod is also clumsy. Triangular zones in the angles of Class I rods are typically filled with some form of lentoid or dotted embellishment, although a number of Class I examples do leave the area plain. Whether empty or filled, however, these zones are neat little triangles which bring balance to the composition – a far cry from the bloated, mis-matched boomerangs which form the angles of the Trusty's Hill Z-rod.

Given the analysis of the precise form of the Trusty's Hill double-disc and Z-rod symbol above, it is concluded that, while its carver was sufficiently familiar with Pictish symbol conventions to capture some 'canonical' details of the form, they were sufficiently distant from the tradition (geographically, chronologically or culturally) that other details were misconstrued or overlooked. The Trusty's Hill symbol has no direct 'partners' in Pictland which parallel its every stylistic component. Nonetheless, it displays a few artistic details or traits that are so basic and common to the Pictish corpus that they could be considered canonical to the form. These include the pinched central

bar with curved seam lines, nestedcircle disc decorations, and a Z-rod. All these features are attested on both Class I symbol stones and on the generally later symbol-inscribed cross-slabs (Class II). Some of the ways in which the Trusty's Hill symbol differs from the norm may be accounted for by the carver's lack of control over the carved line: the wavering circumferences on the left disc, the shaky and uneven rod which is far from straight, and the failure of the separate sections of the rod to join. Close attention is usually given to the circularity of discs on both Class I and II, and, although no formal analysis of this has been done, in many cases discs appear to have been laid out using compasses. This is far from the case at Trusty's Hill. Other differences from the norm are about design rather than carving technique: some, such as the lack of differentiation of rods, are attested elsewhere and may be taken as indicative of late date, *i.e.* contemporary with Class II, if anything towards the end of Class II (Henderson 1960, 50 n.2; Mack 1997, 137). Others appear to be idiosyncrasies unique to Trusty's Hill (large medial indentations on the discs; unusual form and inverted direction of the floriations). It is not simply a case of inferior execution of the incising, which might result from lack of familiarity with the carving qualities of the notably hard greywacke rock, but rather weaknesses of design which seem inconceivable from someone fully immersed in the tradition. The use of incised technique may give the Trusty's Hill double-disc the superficial air of a Class I symbol: closer examination, especially of its rod, makes it clear, however, that it was drawn by someone whose knowledge of the symbols was based on the devolved versions of Class II.

Analysis of image B: Monster

The overall impression gained from study of the lefthand symbol – of a carver aware of Pictish carving on the level of detail but not fully part of the mainstream Pictish tradition, and operating during or after the period of the erection of Class II cross-slabs – is further borne out by an examination of the figural motif to the right in Area B (Fig. 6.3): a beast with a substantial snout and gaping jaws which appear to terminate in spirals. Its jaw-line is well-defined and curves up to terminate in a piercing eye. The muzzle is elaborate, although hard to read in detail in its current state of preservation. The serpentine body sweeps down to terminate in a tightly coiled tail. No internal decoration appears on the body below the jaw-line (as is clear from the laser scan *pace* Allen & Anderson 1903 ii, 478, fig. 508, *pace* Craig 1992, ii 354) but the outline of the body is interrupted in the neck or chest area by two small rounded protrusions which are defined

internally by a simple, inwardturning spiral. If these portray vestigial flippers or fins they are rather small. Whatever this creature depicts, it is not a 'Pictish beast' symbol of the kind so familiar from both Class I and Class II stones (Fig. 6.4). It lacks the necessary long, flipper-like front and rear limbs, the lappet, the long beaky face, and downward-hanging tail found in every iteration of this symbol. Instead, the Trusty's Hill monster belongs to a different species, morphologically more similar to the limbless, lappetless, tail-less 'fishmonster' (so-called) which appears on a number of Pictish stones, though whether this creature should be considered a 'proper' Pictish symbol is doubtful. There is only one alleged example of a 'fish-monster' on a 'Class I' Pictish symbol stone, that from Upper Manbeen, Moray (Allen & Anderson 1903, 128), but this interpretation is a misreading of two separate symbols (salmon and dog/wolf-head) which emerge from an area of damage where the surface has entirely flaked away (Fraser 2008, 114–5). Furthermore, the Upper Manbeen symbol is clearly salmon-shaped with a straight tail and ventral and dorsal fins. It is quite different from the coiled-tailed Trusty's Hill example and may be set aside from the present discussion.

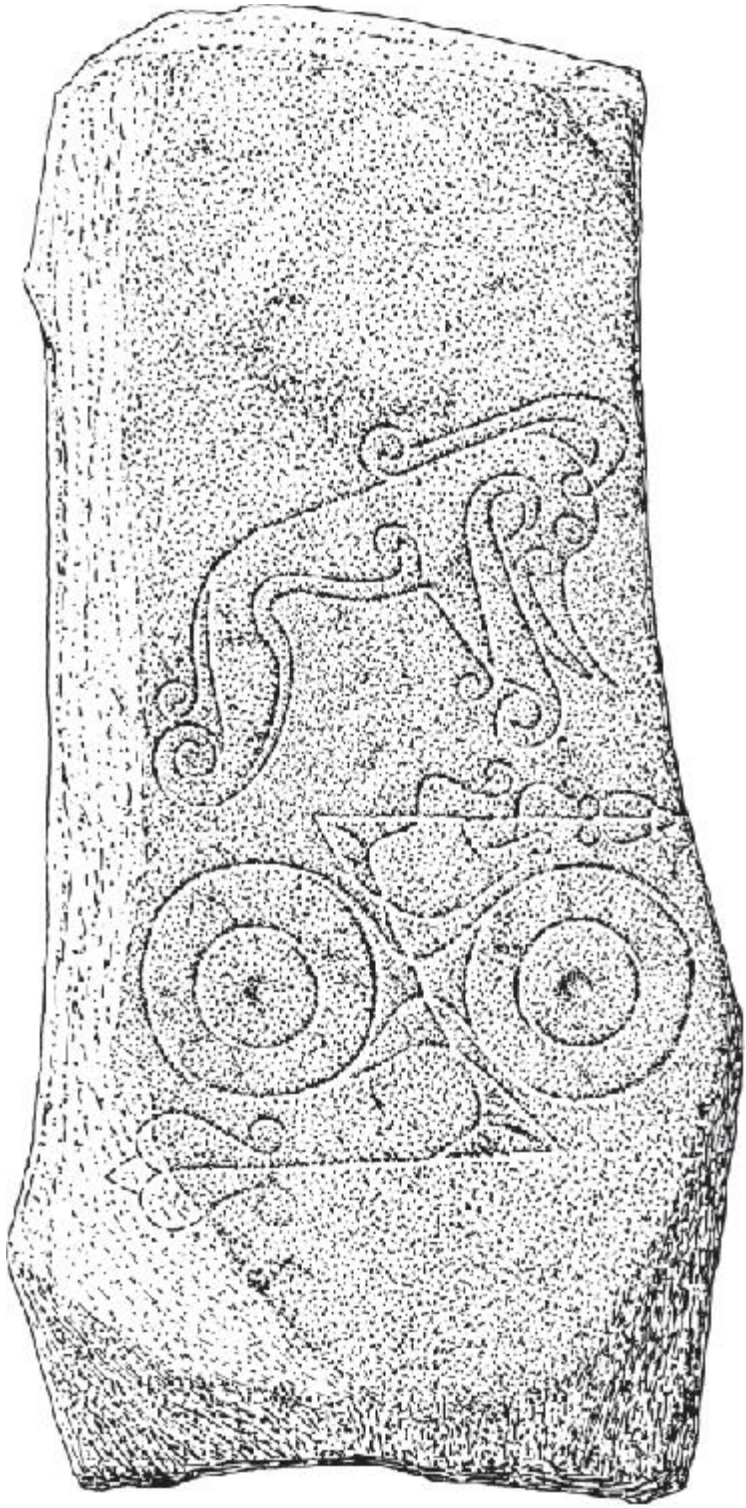


Fig. 6.4. Pictish beast as depicted on Dyce 1. © Crown Copyright: RCAHMS. Licensor

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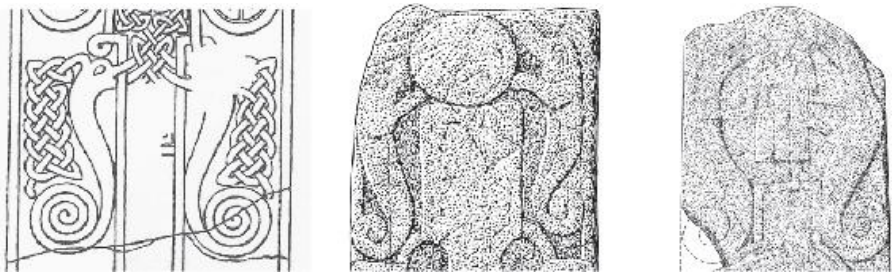

Fig. 6.5. Serpent-monsters in Pictish art (left to right) a. Skinnet, b. Logierait 2, c. the Maiden Stone; (a) we are grateful to the Society of Antiquaries of Scotland for permission to reproduce this illustration; (b-c) © Crown Copyright: RCAHMS. Licensor www.rcahms.gov.uk

Creatures which are far more similar to the Trusty's Hill animal appear on nine or ten 'Class II' symbol-inscribed cross-slabs (Aberlemno, Brodie, Kilduncan (Trench-Jellicoe 2005), Logierait 2, the Maiden Stone, Meigle No. 1, Mortlach, Skinnet, Ulbster and perhaps Tealing) and on a handful of non-symbol-bearing sculptures (Murthly, Meigle 8 and 26 (Allen & Anderson 1903), the St Ninian's Isle corner-post shrine (Ritchie & Scott 2009, 6, 21, no. 34), and a newly discovered cross-slab from Appiehouse, Sanday, Orkney (Gibson 2011). Usually depicted in confronted pairs, these creatures, which 'seem to have been regarded as benign' (Henderson 1996, 25), appear to guard or shield, or perhaps acknowledge *(ibid.)* what lies between them: Christ, a cross-shaft, a large disc, a triquetra knot, treasure (Fig. 6.5). The Aberlemno and Tealing monsters and some of those on Meigle 1 have forelegs and fish-tails which identify them as marine horses or 'hippocamps' and these should perhaps be distinguished from the others which are limbless, coil-tailed serpent-monsters.

Despite the hippocamp's Classical origins as a symbol of the sea-god Poseidon, monsters of this form were, by the Early Christian period, familiar as representations of the *ketos* ('sea monster, whale') which swallowed the Biblical Jonah (Henderson & Henderson 2004, 142–3), as seen in the ninthcentury Stuttgart Psalter. It is perhaps Jonah imagery which accounts for the appearance of hippocamp pairs grasping a human head or body which are incorporated into the frames of certain Pictish cross-slabs: the diagnostic fish-tails are visible on the confronted pairs at Cossans and Dunfallandy, although only the former have limbs. In most cases the two species, hippocamp and serpent-monster, appear distinct: the latter, which have coiled tails do not usually grasp humans in their jaws and tend to lack limbs. The fact that the two species appear side-by-side on Meigle 1 (lower left in

addition to the hippocamp pair upper right) appears to confirm this impression that they are of different kinds. Two examples from Shetland, however, may imply some occasional blurring of the species: the coil-tailed creatures on the St Ninian's Isle shrine-post have forelimbs, and at least one of the confronted pair on the late stone from Bressay appears to have a coiled tail (Ritchie & Scott 2009, 28; *n.b.* while there are limbs visible on the Maiden Stone, these are more likely to be Christ's arms than part of the coil-tailed monsters).

Although Allen dubbed the coil-tailed species 'fishmonster', they lack distinctively fishy characteristics (fins, gills, webbed tails): rather these creatures appear reptilian. Henderson and Henderson referred to them as S-dragons (2004) and this seems appropriate as they are closely similar in form, if not in pose, to images of dragons (*dracones*) in contemporary illuminated manuscripts, such as the ninth-century Utrecht Psalter, Psalm 148 (see pp 172, 182 at www.utrechtpsalter.nl/#digital-edition). This identification does not negate potential marine associations: although today dragons are primarily thought of as flying creatures, in Antiquity they were typically associated with water. In the apocryphal Gospel of Pseudo-Matthew, a text known in Ireland *c.* AD 700, and Northumbria by *c.* AD 800 and apparently also in Pictland (Whitworth 2014), the cave-dwelling dragons *(dracones)* who worship the infant Christ during the Flight to Egypt are explained as 'an earthly species which is born in the waters of the deep'.

The hippocamps appear to be part of the broad menagerie of fantastical creatures which grace the cross-slabs: some, like the centaur and griffin, of clearly Classical origin, others fantastically *sui generis* (Henderson 1996; Henderson & Henderson 2004, 84). The origin of the Pictish S-dragon may, however, be more complex. Previous discussions have focussed on the motif's Christian symbolism and Mediterranean antecedents (Trench-Jellicoe 2005), but the confronted pair of serpent-monsters, with prominent jaws and coiled tails, is already established in the pre-Christian, pre-Roman art of both Celtic and Germanic-speaking areas of northern Europe. An example is the S-dragon pair ('dragon-lyre') which appears on La Tène-style metalwork, specifically sword scabbards, from as early as the third century BC (Megaw & Megaw 1989, 127–8, figs 181–4). The meaning of this widely distributed motif, which is found in England, France, Italy, Switzerland, and in eastern Celtic lands from Hungary eastwards, is unknown *(ibid.)*. Similar motifs are found in the mid-first millennium AD on Gotlandic Picture stones *(bildstenar)* where paired serpents have equine and marine associations and appear to reflect solar cult and iconography of ultimately Bronze Age origin (Andrén

2012). The latest of these, for instance the stone from När Smiss (III), date to perhaps the sixth or seventh century AD (Widerström 2012, 17) and are thus roughly contemporary with Pictish Class I symbol stones, although there seems no direct connection.

Although paired dragons thus appear to be deepseated in mythology and iconography elsewhere in northern European, surviving Scottish Iron Age art is, with few exceptions, non-representational (though note the massive bronze double-headed snake armlet from Culbin Sands, Moray (MacGregor 1976, *no.* 214). Pictish representations of the S-dragon are perhaps more likely to have drawn on Late Antique models, such as Roman and Germanic military emblems (Fig. 6.6). Potentially the earliest example from Scotland is a possible S-dragon identified on a small iron amulet from Rhynie in Aberdeenshire, which, in the excavators' opinion, is likely to date no later than the sixth century AD (Noble *et al.* 2013, 1148). The form of the amulet is unique: it appears to depict a ceremonial pole-axe but the axe-head on one side of the suspension loop is balanced on the other side by an elegantly tapering S-curve which ends in a tight coil. An x-ray of the corroded artefact (Fig. 6.7) appears to indicate the brow and eye of an S-dragon, but this remains uncertain in advance of conservation. While the Rhynie amulet (if correctly identified) would extend the dating of the S-dragon motif in Pictland back at least to the sixth century AD, that would not mean the Trusty's Hill dragon is necessarily this early. The continued familiarity of the creature into the eighth, ninth or even tenth century (Trench-Jellicoe 2005) is demonstrated by its appearance on late Class II slabs.

The fact that the S-dragon never appears on Class I stones and usually appears on later sculpture alone or paired only with itself underscores its primarily non-'symbol' nature. In the whole corpus of Pictish art there appears to be only one clear example of the use of the S-dragon as a true 'Pictish symbol'. This is the unusual Class II cross-slab from Ulbster, Caithness, which on its reverse has four pairs of symbols grouped around a cross. Six of these symbols are familiar from the 'canon', two are not: a lion (top right) and the S-dragon (bottom left). The Ulbster dragon, which faces right, rather than left as at Trusty's Hill, is paired with the comparatively rare 'stepped rectangle' symbol, seen elsewhere on the Class I symbol stone from Roskeen and on five Class II cross-slabs. Like Trusty's Hill, the Ulbster S-dragon has a tightly coiled tail, but differs from the former in having a pricked ear and a medial line along the length of its body. Notwithstanding a potential theological explanation for the presence of these two creatures on the stone (Whitworth 2014), they are

apparently paired with recognisable symbols and thus must be considered as potentially acting as symbols (on defining 'canonical' symbols see Forsyth 1997). This readiness to co-opt a 'non-canonical' image as a symbol may constitute an extrapolation from the more restrictive rules followed on 'Class I' symbol-stones. This innovative attitude is further exemplified on Ulbster by its rulebending proliferation of symbol pairs on a single stone. It is interesting to note that these two deviating examples, Ulbster and Trusty's Hill, lie towards the northerly and southerly extremity of the mainland Pictish symbol distribution. There are only two other examples of S-dragons appearing as singletons: Appiehouse on Sanday and Meigle 1 (where the single S-dragon is paired with a facing single hippocamp).

While the Trusty's Hill S-dragon appears to be a close relative of these various Pictish S-dragons, it is unique in one respect: it exhibits underbelly spirals. These are quite unlike the clearly equine forelimbs on Aberlemno or Tealing and although somewhat similar to the curled ends of the limbs of the 'Pictish beast', they are much smaller. If they were indeed limbs, then they would be vestigial, but they appear not to be limbs at all: rather, the two stubby spirals seem to represent an open wound on the creature's chest caused by the 'conical spike' (Allen 1903, ii, 479) pointing up to the underside of the beast (Fig. 6.3). This element, which comprises a rounded pelta with spiral terminals and, issuing from it, the long triangular 'blade' or 'point', is recessed relative to the beast, carved more deeply than the rest and with the surface on either side of the blade cut back slightly. Yet the two give every impression of being contemporary elements of a single, unified design. The recessing would have been labour intensive, and therefore must be significant. Ross Trench-Jellicoe tentatively suggests to us *(pers. comm.)* an entirely novel interpretation in which the object is exiting rather than entering the beast: he speculates that the reason for the choice of false-relief was that the scene was 'a formalised depiction of a birth erupting from the beast's belly' *(in litt.)*. All previous published explanations, however, have taken the element to be an inanimate object piercing the beast's flank. The object depicted has been variously identified as a whetstone (Radford 1953, 237), a sword (Thomas 1963, 53; Mack 1997, 137), or a triskele-headed pin (Laing & Laing 1984, 266–7). The pointed nature of the item counts against its being a whetstone, yet the lack of a graspable handle or guard makes it an unlikely sword. The 'spike' is far too thick for a hand-pin, though the head is not implausible as such (though if this were indeed a dress-fastening pin the relative scale would imply that the monster is more of a shrimp!). Craig was content to accept the

identification as a sword and compared the form of the pelta-with-volutes to similar examples from Pictland, including Abernethy, Dunrobin, Monymusk, and North Redhill, although, as he notes, none of these occur within a weapon handle (Craig 1992, 199). These are general rather than specific parallels. Perhaps of more relevance, is Craig's suggestion that the Trusty's Hill handle is based on a metalwork original such as the ninth century Anglo-Saxon 'Ingelri' sword pommel, recovered from the Thames at Battersea, which is inlaid with a volute pattern (Craig 1992, 199; Wilson 1964, 40, 107, pl. vii). The absence of a hilt guard and grip from the Trusty's Hill object, however, would require explanation if it were indeed a sword.

Fig. 6.6. Dacian Draco standard depicted on Trajan's Column. © Radu Oltean/Wikimedia Commons/CC-BY-SA-3.0

Fig. 6.7. X-ray of Rhynie iron axe-hammer pin. © University of Aberdeen/Rhynie Environs Archaeological Project

Ewan Campbell has brought to our attention a far more striking parallel in the form of the recently discovered copper alloy stick pin from Tirefour, Lismore (Fig. 6.8; Campbell forthcoming). The mushroom-shaped head of the pin is incised with a design of lentoids and spirals which strongly resembles the Trusty's Hill design: both share inward turning spirals flanking a central triangle. The Tirefour design can be read as an abstract human face, though Campbell suggests this may be fortuitous. The shaft of the pin is highly unusual in being of different cross-section in its two halves: octagonal at the headend, and round at the tip. It appears rather thick to serve as a dress pin and Campbell explores alternative functions, including stylus and book-pointer *(æstel)*. All three are hard to reconcile with the Trusty's Hill scene, yet, visually the similarity between the two objects is close. The uniqueness of the Tirefour pin, both in form and decoration, makes it hard to date, though Campbell suggests the late seventh or early eighth century on art historical grounds (Campbell forthcoming). Before moving on it is worth noting the pelta-with-volutes between the paired beasts on the reverse of the Brodie Stone (although its spirals turn in the opposite direction to Trusty's Hill and Tirefour). What this item is intended to represent is unclear: it is the uppermost of five elements which display features reminiscent of metalwork: the circles recall cloisonné studs; the spiral and crescent appear to bear bosses, the subdivisions on the pelta may suggesting champlevé enamel fields like those on Tirefour. These may be representations of objects akin to the symbol-inscribed bronze crescentic plaque from Laws, Monifeith, and the double-disc-shaped plaque from a Norse grave at Ballinaby, Islay (Fraser 2008, 138), in which case the dragons are depicted in their habitual role as guardians of treasure (Watkins 1995, 300).

Fig. 6.8. Pin from Tirefour, Lismore. © Ewan Campbell

Whatever the identification of the item depicted at Trusty's Hill, if in fact it is intended as an actual object, it does seem to be *functioning* as a weapon, piercing the underside of the monster. If this interpretation is valid it would mean that what the carving in Area B represents, in abbreviated form, is an event, the wounding or slaying of a monster, giving it narrative rather than simply iconic force. This is a clear contrast with the iconic Pictish symbols which are non-narrative. The question is: is it possible to identify the tale to which this image alludes?

Discussion

Identifying the monster

Monsters are frequent on Pictish sculpture and are often depicted in conflict with humans (Henderson 1996). In these conflicts, however, the monsters threaten, struggle with, or have already vanquished and devour humans. They are never depicted in defeat. This contrasts with Viking art which includes a number of depictions of the slaying of the monster Fafnir 'the worst of all worms' by the great hero Sigurd, one of several episodes of dragon-slaying in Norse mythology (Kopár 2012, 23–56). In order to kill Fafnir and gain his treasure-hoard, Sigurd is obliged to conceal himself in a pit and thrust his sword upwards into the beast's underbelly. The scene is depicted on a Viking Age cross-slab from Jurby in the north of the Isle of Man, a short sea journey from the Kirkcudbrightshire coast (Kermode 1907, 174–6 no. 93, Manx Museum No. 119; Cubbon 1983, 26–7). Wear on the cross makes the details difficult to see but the sinuous body, coiled tail and massive jaws and snout of the creature are readily discernible. A similar scene is depicted on two other Manx cross-slabs: Malew and Andreas (Kermode 1907, 176–8, no. 94–5, Manx Museum No. 120–1). All three are consistent in their iconography and depict a crouched figure thrusting his sword upwards from the left into the underbelly of a retrograde S-curved dragon. Further episodes from the Sigurd legend are depicted on other Manx stones alongside Christian iconography, as they are on a number of Anglo-Scandinavian sculptures from Cumbria, Lancashire and Yorkshire (Kopár 2012, 34–9).

Although he did not make an explicit suggestion of a Norse context for Trusty's Hill, Craig drew attention to a number of Sigurd and Fafnir scenes, including Jurby and Kirby Hill 9, as 'Scandinavian versions' of the S-dragon and sword pairing seen in Scotland only at Trusty's Hill and on Fowlis Wester 2, Perthshire (1992 i, 201, n.2).

The Fowlis Wester creature (Henderson & Henderson 2004, 154) is strikingly similar to the Trusty's Hill beast but the sword, with its clearly delineated handle and guard, is of a different shape and, crucially, rather than pierce the monster, lies parallel to it with its tip pointing away from the creature's body (Fig. 6.9). The sword is accompanied by a circular object which may be a shield. Whether these are the weapons of the naked human figure being swallowed by the monster on the right, or constitute a treasure hoard, is unclear *(c.f.* the possible treasure hoard between the pair of S-dragons on Brodie; but note the circular object (a shield? a paten? a coin?) between the pair of S-dragons on Logierait 2 (Fig. 6.5). The importance of these creatures to the iconographical programme of the Fowlis Wester stone is reflected in their size and prominent position at the top of the slab above the upper arms and ring of the cross. The two Fowlis Wester monsters are identical, but the question is, are these a pair of twins, with somewhat different iconographical functions, or are they intended as sequentially depicting two episodes in the story of a single creature? Although the human grasps the underside of the creature's jaw, it is the monster who has the upper hand, its powerful jaws are clamped firmly around the person's head. It is tempting to interpret the semi-circular element which protrudes from the jaw of the left-hand dragon at Fowlis Wester as a ring akin to the cursed ring guarded by Fafnir which is central to the Sigurd story and depicted on some Scandinavian versions. However, comparison with the Brodie S-dragons suggests that the curve is more likely to depict the creature's protruding tongue. In any case, whoever the assaulted naked figure to the right is, he is clearly not the hero Sigurd triumphing over the dragon.

One problem with the Fafnir interpretation at Trusty's Hill is the obvious lack of a Sigurd. Yet this is not necessarily a fatal objection: there are a number of visually abbreviated versions of the *Drachenstich* motif which lack the hero figure and consist only of an upward-thrusting sword embedded in the dragon's body, *e.g.* the carved stone from Tanberg, Bukerud, Norway; the eleventh century Norse axe-handle from Vladimir-Susdal, Russia; and, geographically much closer to Trusty's Hill, a lost stone from Kirby Hill, North Yorkshire (Bailey 1980, 119 fig. 19; Kopár 2012, 34–9; Lang 2001, 133 illus. 358; Williams *et al.* 2014). Trusty's Hill parallels these in depicting a pointed object thrusting upwards to pierce the S-curved dragon. If it too were a depiction of the death of Fafnir, it might go some way towards explaining the recessing of the weapon in false-relief: it is central to the story that the blade is wielded from a concealed pit

below the creature. There are, however, further problems with this interpretation. Stylistically, the Trusty's Hill dragon is more closely related to the eastern Scottish examples than to any of the Norse ones, and Norse influence would mean a date no earlier than the late ninth century, and more plausibly the tenth or eleventh century, *i.e.* well after the end of the Pictish symbol-carving tradition which is generally presumed to have ceased in the mid-ninth century (Carver 1999, 21). Anglo-Saxon reflexes of what is a pan-Germanic tale (*e.g.* the dragon-slaying Sigemund in *Beowulf*) would doubtless have been available in south-west Scotland before this date, but we know of no tradition of representing the scene in pre-Scandinavian English art.

Fig. 6.9. Fowlis Yester 2 (detail). © Crown Copyright: RCAHMS. Licensor www.rcahms.gov.uk

If the dragon is not Fafnir, then perhaps a source is to be sought in native Celtic tradition. Watkins has identified the motif of the 'god/hero killing a dragon or other reptilian adversary' as being so widespread as to be 'quasi-universal' (1995, 297). Nonetheless, he identified distinctively Indo-European 'modalities of the myth', expressed in both Celtic and Norse traditions which are relevant here. Certainly, serpent-monsters are no strangers to Celtic literature, whether Goidelic or Brittonic (Borsje 1996; Minard 2007; Campbell 1911; Simpson 2001) and there are a number of Irish and Welsh tales

which feature a hero fighting a treasure-guarding reptile (Simmons 2006). In Irish tradition the monster is often explicitly a water creature, as in *Táin Bó Fraech* and in the tale of Fergus mac Léiti and the *muirdris* (Watkins 1995, 441–7), and as it often is in Scottish Gaelic folk tradition (MacilleDhuibh 2014). Not all Celtic dragons are malign, however. Sims-Williams notes that positive '[c]omparisons between rulers and dragons or serpents are commonplace in early Celtic panegyric', citing, for example, the sixth century British-Latin writer Gildas's description of Maelgwyn, king of Gwynedd, as *insularis draco* 'dragon of the isle', and the epithet of Selyf son of Cynan, *Sarffgadeu* 'serpent of battles/armies' (2014, 53). Note also the epithet of Arthur's father Uther: *Pendragon* 'chief of dragons'. Perhaps most positively of all, the red dragon *(Draig Goch)* appears as a literary symbol of Brythonic identity as early as the first half of the ninth century in *Historia Britonnum* (Simmons 2006, 10; Lofmark 1995). A distinction must be drawn, however, between literary motifs and visual representations. In the twelfth century, Geoffrey of Monmouth imagined Arthur as having had dragon devices on his battle gear and the dragon was in use as the heraldic emblem of the Tudors from the midfifteenth century (Simmons 2006; Lofmark 1995) but, while it is easy to accept the positive use of a dragon as a personal or family emblem, and conceivable that such an image might be defaced by an enemy, to create a modified version of such an emblem and use it subversively seems anachronistic and is not, as far as we are aware, paralleled in early medieval Insular symbology.

Although reptilian monsters are ubiquitous in Insular art in the early Middle Ages, and S-dragons appear to have been a widespread element in Northern iconography, both Celtic and Norse, since the Iron Age, the *slain* dragon is something more specific. There does not appear to have been a tradition of representing it in Britain or Ireland before the Viking Age. Trusty's Hill remains the only secure example of a *wounded* dragon from Scotland (its open eye apparently indicates it is still alive, even if mortally injured). It is the *piercing* of the Trusty's Hill dragon which suggests the identification as Fafnir, although the emphasis given to the lethal instrument at Trusty's Hill is consistent with the prominence of the sword in the Norse myth: the sword which Sigurd used to slay Fafnir was a special one, forged by the smith Regin from fragments of the sword which had belonged to Sigurd's father, it succeeded after two others had failed (Kopár 2012, 23). Special, named, and often ancient swords feature prominently in other Norse episodes of dragon-slaying (Watkins 1995, 414). In contrast, Celtic tradition generally places less emphasis on the special

properties of swords: it is the monster-slaying hero who is special, not the weapon he uses for the deed. There are remarkable swords in Celtic literature, of course, and Borsje notes a small number of cases from early Irish sagas of a hero's weapons being 'alive' and acting (and speaking) without human intervention, but these few examples relate to man-to-man combat and none of the selfpropelling swords act to slay monsters (1999, 230–1).

The place-names of south-west Scotland provide evidence of the 'complex sequence of languages' spoken there before the twelfth century, 'some of which must have co-existed for a considerable time' (Taylor 2001, 480). These comprise the native Cumbric *(i.e.* Brittonic/ British), interleaved with the languages of incomers: Anglian (from the seventh century), Gaelic and Norse (from the ninth century). Thus at various dates any of the traditions referred to above could plausibly provide a context for the monster. While the portrayal of a defeated dragon might resonate with a Celtic-speaking audience, the specifics of the image point rather to Germanic tradition. Against this must be counted the stylistic connection with eastern Scotland and, most obviously, the fact that the creature is juxtaposed with an indubitably Pictish double-disc. Whatever the date assigned to the two elements, the carving technique used suggests they are contemporary with one another and distinct from all other carving on the rock face. They are meant to be read together. As noted above, Pictish symbol statements typically consist of a pair of symbols, sometimes modified by a mirror with or without a comb (Forsyth 1997), thus the Trusty's Hill carvings are consistent with the Pictish norm in being paired, even if they diverge in other respects. On Class I symbol-stones the two principal symbols are typically placed one above the other (with the mirror or mirror-and-comb below) and there are only a few exceptions to this 'rule' *(e.g.* Arndilly in Moray; Rhynie 5 in Aberdeenshire). Even on Class II monuments side-by-side pairings are very rare *(e.g.* St Madoes). There appears to have been ample room for the monster on the rock surface below the doubledisc at Trusty's Hill, so the side-by-side placement must be deliberate, although its significance is not clear. Of course, the Trusty's Hill symbols are carved on bedrock, not on a symbol-stone monument, so rules governing the latter may not have applied (it is harder to discern vertical pairings among the mass of symbols and other Pictish carvings on the caves at East Wemyss or Covesea). The S-dragon is not found on Class I and thus, is not to be counted as a member of the basic symbol set, especially as it appears on numerous Class II and other cross-slabs functioning other than as a symbol. However, its use on the Ulbster stone appears to indicate that

in certain circumstances the S-dragon could be co-opted to function as a symbol within the Class II tradition. Even so, the Ulbster and Trusty's Hill S-dragons are not identical and the apparent narrative context of the latter means we must be cautious in assuming that it functions exactly as a second symbol would. The Trusty's Hill carver knew, more-or-less, what a double-disc should look like and that it should be paired with something else. Beyond that, however, there is an air of improvisation about the work. The specific message intended by these carvings may not be recoverable, unless there is an improvement in the current poor state of understanding of the meaning of the symbols and of the origin and function of the S-Dragon on sculpture from eastern Scotland. Insight into their general significance, however, may be gleaned from comparison with other 'Pictish' carvings furth of Pictland.

Comparanda

Two other rock-faces in Scotland bear incised animal carving: a single boar carved on a rock-face at the fort of Dunadd, Argyll, and a group of three stags at Eggerness, Garlieston, Galloway. George Henderson (2008) asserts that the Dunadd boar is in distinctively Pictish style *(contra.* Campbell 2003, 48–9). In a small number of cases Pictish mammal 'symbols' are found paired with geometric symbols, but some *(e.g.* the Inverurie horse, the Burghead bulls) appear alone: so the Dunadd boar is not exceptional in this respect. The fine stag and its two lesser companions incised in a flowing style one above the other on a cup-and-ringmarked rock-face at Eggerness are not distinctively Pictish in either arrangement or style, although there is the suggestion of a joint scroll on the rear leg of the upper stag (Morris & Van Hoek 1987; Gray 1992; Mack 1997, 144). The Eggerness deer are difficult to date and even if they are early medieval, which Craig doubted (1992, i 200), it is not known whether they would pre- or post-date the Trusty's Hill carving just a few kilometres away across Wigtown Bay. Trench-Jellicoe would prefer to assign them to a Scando-Insular context in the late tenth or early eleventh century *(pers. comm.)*. The nature of the Eggerness carvings, in both design and technique, is distinct from those at Trusty's Hill, indicating a degree of separation even if they do provide a local context for the carving of designs on significant exposed rock-faces. The Eggerness carvings are poorly understood and the nature of the activities which took place at the incised rock-face is unclear – there are no known associated structures – but the presence of a series of spirals, cups, and cup-and-ring marks on adjacent outcrops indicates that this elevated site overlooking the

sea was a centre of ritual activity from the Bronze Age.

There was only a limited tradition of stone-carving in south-west Scotland in the pre-Viking Age (Craig 1992). The fifth century inscription at Whithorn and the sixth century one from Liddesdale represent an evolution of local, late Roman period stone-carving (Forsyth 2009). The very fine cross-carved inscriptions from Kirkmadrine and Whithorn ('Peter Stone') reflect a separate, ecclesiastical phenomenon of the sixth and seventh centuries respectively *(ibid.)*. There was limited stone-carving at Anglian Whithorn in the eighth century (Craig 1992; Collingwood 1925), and at the early monastic site at Ardwall Island, only a few kilometres south of Trusty's Hill and which includes an Anglo-Saxon inscription (Thomas 1967). The Trusty's Hill carvings have little in common with any of these, which are burial monuments at ecclesiastical sites, nor do they seem technically close to the Eggerness carvings, despite both being incised on exposed rock-faces. Profile analysis of the incised lines might establish whether the tools and techniques used at Trusty's Hill were local or not. A range of incision techniques appear to have been used on Pictish Class I symbol-stones (Gordon 1956) but these have not yet been mapped or dated. It would be impractical to attempt to carve a rock-face in relief due to the large amount of stone which would have to be removed, which may be sufficient to account for the fact that although the Trusty's Hill symbols have features in common with Class II versions of symbols, they are incised like Class I.

Despite the idiosyncrasies discussed above, the 'Pictish' credentials of the Trusty's Hill double-disc symbol cannot be doubted. The difficulty then is to explain its presence so far south: Trusty's Hill is over a 100 miles (c. 160 km) from the most southerly Pictish symbol stone (Edinburgh), itself a southern outlier by at least 30 miles (48 km). Of course, it must always be remembered that the symbols did not appear only on stones even if this medium is the most heavily represented in the surviving archaeological record. Symbols also feature on a wide range of portable objects, including *de luxe* jewellery, stone and bone gaming-pieces, and small stone objects of unknown function (Fraser 2008, 138–40). The survival of a simple bone pin from Pool in Sanday demonstrates that even humble objects in organic materials might bear symbols. These are all highly mobile objects, circulating at different social levels even in politically peripheral places in the far north of Pictland, and they raise the possibility that the distribution of symbols was originally wider than the symbol stones alone suggest. They are also important for emphasising that symbols could be used in a wide range of contexts,

not only in the apparently memorial context of 'Class I' symbol stones.

Trusty's Hill is not the only southern outlier of the Pictish symbol distribution: a very fine pair of symbols – a double-disc and Z-rod, and notched rectangle – appear on the terminal ring of a massive silver chain from Whitecleuch in Lanarkshire, about 60 miles (*c*. 97 km) north of Trusty's Hill (Henderson 1979). Despite its (relative) geographical proximity to Trusty's Hill, the Whitecleuch double-disc and Z-rod is rather different in style. Curiously, its engraved Z-rod is a true 'Z' in comparison to the Trusty's Hill and most Class I retrograde versions and its discs are decorated with swirling spirals instead of concentric circles, a feature paralleled on late Class II cross-slabs *(c.f.* Ulbster, Strathmartine 5, Kirriemuir 2). Again in contrast to Trusty's Hill, the Whitecleuch floriations bend in the usual S-curves towards the middle of the rod. Whitecleuch's central bar is comparatively short, though it also contains the typical pinch or matching convex curves. Overall, the stylistic details of the Whitecleuch symbol fall well within the Pictish metalwork idiom: its spirals and short connecting bar echo those of the double-disc and Z-rods on the Norrie's Law plaques, which also share almost identical floriations. If the Trusty's Hill symbolcarver drew inspiration from portable artefacts, the Whitecleuch chain itself did not provide a direct model. Henderson considered the Whitecleuch chain terminal to have been made 'long before' the Trusty's Hill symbols were carved and saw 'no reason to connect these two Pictish traces in Southwest Scotland' (1979, 27). She linked the Whitecleuch chain to a plain example from Walston further east in Lanarkshire, suggesting an ultimate origin in southern Pictland, perhaps Fife *(ibid.)*. In a more recent discussion, Youngs has also drawn comparison with Pictish silver from Fife, observing that 'the richer more florid infill' of the Whitecleuch symbols is 'close in style' to that of the Norrie's Law plaque, which she would date to 'the later seventh century' (2013, 411). While there is unlikely to be a direct link between the Whitecleuch chain and the Trusty's Hill symbol, Whitecleuch does provide valuable evidence for one of the routes by which Pictish contact was mediated to the south-west: its find-spot lies close to a major route south into Galloway as it crosses the watershed: an important boundary zone perpetuated in the historic county boundary between Lanarkshire and Dumfriesshire.

In addition to the Whitecleuch chain and the Trusty's Hill carvings, there are two more outliers from the main distribution of Pictish symbols: the canonical Class I symbol stone from Princes Street Gardens in Edinburgh 'which bears a double-disc and Z-rod below a crescent and V-rod' and the aforementioned boar on the summit of

Dunadd. Previous writers have struggled to suggest historical scenarios which could account for the presence of these Pictish symbols apparently so very far from the land of the Picts. Some have been content to follow Henderson in her opinion that Trusty's Hill could be 'safely dismissed as an outlier' (1967, 114). Radford, by contrast, was of the opinion that the Edinburgh, Trusty's Hill and Dunadd symbols were carved to commemorate Pictish leaders who fell in attacks on these fortresses (1953, 238). This explanation was adopted, at least in the case of Trusty's Hill, by Thomas (1961, 60; 1963; 1981, 288) and has been oftrepeated since (Laing 1975a; Laing & Laing 1979, 247; Oram 1993, 14), yet it seems inherently implausible.

That there is no historical evidence for Pictish military activity in Galloway is, admittedly, a weak argument as our historical evidence is so extremely scanty, but why would raiders commemorate one of their own so far from home using a symbolic system alien to the local population? And why would the locals not deface any such memorial to their own degradation once the enemy forces had departed? It is a mistake, in any case, to assume that the symbols are necessarily commemorative, to do so is to confuse the function of Class I symbol stones (which do appear to be broadly funerary) with the much wider range of functions to which portable objects and cave graffiti demonstrate the symbol writing system could be applied (Forsyth 1997). The Trusty's Hill symbols are not graffiti hastily scratched, but rather a substantial and carefully laid-out carving in a highly visible location at a power centre, which itself occupies a commanding position. Their siting on the approach to the citadel is also central to any understanding of how they work. The viewer would encounter them as he or she approached the entrance to the inner part of the fort. They are positioned opposite the rock-cut basin whose function, though not fully understood, may have involved some ritual activity. The symbols are thus part of a multi-element statement about the power of the inhabitants of the fort. Whatever the content of that statement it must have had meaning for a *local* audience, its likely explanation lying in *local* politics and aspirations.

The parallels with Dunadd seem particularly strong. Previous explanations of its Pictish boar are centred on a historically attested attack on the fort in AD 736, and seen in terms of a kind of 'ethnic tagging' by the Pictish raiding party. Jackson presumed that it must therefore be an assertive and thus offensive image and was puzzled that the locals allowed it to stand after the Pictish departure. He deduced from its continuing presence that the site must have been

abandoned thereafter. Subsequent archaeological investigation has shown this not to be the case - the site remained in use long after that, and continued to be a 'significant place' for the transaction of royal business well into the Middle Ages (Lane & Campbell 2000). Knowledge of Dunadd's broader historical context has also been greatly enhanced since Jackson wrote and it is now understood that what happened in AD 736 was not an isolated raid but in fact part of a process of conquest of Argyll by the Picts under the leadership of Onuist son of Fergus (729–761), one of the greatest of all Pictish kings, a major figure in British politics in the eighth century (Fraser 2009; Broun 2012).

Recent work on the carvings at Dunadd (Forsyth 2012) has suggested that the major remodelling of the site which archaeology shows occurred in the mid-eighth century most likely reflects this change of regime and its need for a new venue for political theatre. Part of this remodelling was a new focus on the exposed rock-face at the summit, which is carved with the boar, an ogham inscription, a foot-print and a small basin, all of which appear to relate to royal inauguration ritual. It cannot be determined whether the various carvings on the rock-face were added as part of this remodelling or were already in existence (or indeed, added later). Nor can it be established whether or not they were carved as a single package or were added cumulatively. However, the stylistic link between the Dunadd boar and similar animals on symbol stones from Dores and Knocknagael, Inverness-shire, has prompted Forsyth to speculate that the boar's presence in Mid-Argyll was meant to articulate a change in political orientation towards the Pictish north and the kindred of Onuist (2012). Following Jackson, one might choose to see this political message as having been imposed on the locals by their new Pictish overlords, but equally it could have been an active expression of adherence and loyalty to the new overlords on the part of a newly ascendant local faction which survived regime change.

The similarity between the two raises the question of whether they are independent responses to analogous political circumstances or whether Trusty's Hill might be directly modelled on Dunadd (or *vice versa)*. Of course the circumstances at the two fortresses are not completely identical. The royal inauguration rituals at Dunadd involved the king standing on the flat slab of living rock. The Trusty's Hill slab slopes too steeply for this, it is meant to be looked at, not stood on. However, the proximal relationship of both to the entrance to the upper citadel of each fort, and the presence of a tank at Trusty's Hill and an admittedly much smaller basin at Dunadd, may point to

cognate origins in political rituals.

Cessford asserts that the outliers (Edinburgh, Trusty's Hill, Dunadd, Whitecleuch) constitute evidence that non-Pictish groups 'occasionally adopted the Pictish symbols for their own purposes when they wished to' (1994, 83). Such use was clearly highly selective. The users of Pictish symbols outside Pictland were unique in their regions, and thus they cannot have used them quite in the same way as those in Pictland who were surrounded by other symbol users. A helpful comparison may be made with the contemporary picture-stones of Gotland. Over 500 survive on the island itself with only four known from elsewhere: two on the neighbouring island of Öland, one from the Mälaren district of mainland Sweden (on a geologically distinctive piece of stone imported from Gotland) and one from across the Baltic in Latvia. These latter two both bear runic inscriptions which stress that they had been acquired in Gotland (Lamm 2012, 25). As with Pictish symbols, the tradition of erecting Gotlandic picture-stones continued over many centuries and was renewed several times. Swedish scholars view it as being 'firmly established as a vital component in an ethno-genesis, namely the process of creating the cultural and ethnical identity of the Gutar - the people of Gotland' (Varenius 2012, 48). When erected outside Gotland, these iconic monuments appear to have been a means for highly unusual families or individuals to assert some connection with Gotland, whether that association was one of personal or family origin, or a looser one of political, military or commercial connection. It is interesting that at both Dunadd and Trusty's Hill the Pictish statement is tied to its geographical location in an emphatic way by being carved, not to a moveable pillar-stone but to the living rock itself, something that, with the exception of cave graffiti which is a separate phenomenon, is not found in Pictland.

The historical context

What kind of connection might have existed between the lords of Trusty's Hill in the eighth, ninth or tenth centuries and Pictland? The situation at Dunadd is different from that at Trusty's Hill. Argyll is known to have been under the overlordship of Pictish kings from the mid-eighth century, which was never the case in Galloway. While it can be emphatically stated that Galloway was never part of 'Pictland' (Oram 1993), in the sense of having ever been under the rule of a Pictish king or ever having been thought by contemporaries to be 'ethnically' Pictish, this does not imply that Galloway need have been entirely divorced from Pictish politics, nor that there were never any

Picts there. Earlier models of the political history of early medieval Scotland have tended to be simplistic and overly ethnicised. More recent accounts have emphasised instead that major leaders such as Onuist ranged widely in their activities and were not constrained by purely ethnic loyalty: ethnicity was no barrier to an advantageous alliance. Even the famous Battle of Nechtansmere (AD 685), on which so many previous theories have been hung, was not a simple Manichean fight between Anglo-Saxons and Picts but apparently something altogether more complex, with different factions of Picts on either side (Fraser 2009, 202–3).

The factionalised politics of the age meant that members of ruling dynasties frequently spent periods of time in exile, or, if they were female, could be sent furth of their homeland in marriage, as were Máel-Muire *(d.* 913), daughter of Cináed mac Alpín, and her anonymous sister who left Pictland to marry kings of the Irish and Strathclyde British respectively (Woolf 2007, 115 & 111). Such noble brides and exiles would have been accompanied by entourages which befitted their status. Population movement on a slightly larger scale is implied by the references to the migration of a Pictish kindred from Skye to Ireland under Cano mac Gartnáit *c.* 668, although they returned after a mere 3 years (Fraser 2009, 204–5). We have literary sources relating to Ireland, Northumbria and Strathclyde from which we can piece together Pictish dynastic and ecclesiastical links with these areas. Such sources do not survive for south-west Scotland in this period but similar connections are highly likely (Cessford 1994, 83), bearing in mind that, notwithstanding the evidence of contact via overland routes provided by Whitecleuch, the coastal location of Trusty's Hill suggests any such contact could have been via sea and need not have been with the parts of Pictland, such as Fife, closest as the crow flies. A number of Pictish kings had southern interests: Pictish royal patronage of the church at Durham is documented in the Durham Liber Vitae *c.* 840 (Forsyth 1999). Artistic links between Pictland and Mercia which are evident in sculpture (Plunkett 1998, 226) are a reflection of diplomatic links - secular and ecclesiastical - which were sustained by the movement of individuals who necessarily had to travel through southern Scotland. There was also movement in the other direction, *i.e.* from south to north (and then back again). In the late eighth century, at a time when Galloway was under Northumbrian political control, two Northumbrian kings, Alcred (774) and Osbald (796) sought temporary exile in the Pictish court (Forsyth 1999, 26; Fraser 2009, 332). Visitors would have seen symbol-carved monuments during their stay and returned with memories of their

form and significance.

Previous writers have attempted to use historical context to provide a date for the Trusty's Hill symbols, fixing on the date of the Battle of Nechtansmere in AD 685 as alternatively a *terminus post quem* (Radford 1953) or a *terminus ante quem* (Thomas 1961). Improvements in our historical understanding mean we can now see that Nechtansmere is a red herring. We know too little about the history of Galloway in this period to rely on external evidence in this way. The archaeological evidence for the history of the site is a surer guide but even this is not unproblematic. The recent excavations have demonstrated that the principal occupation of the site lasted from the late fifth to the early seventh century. It would be natural to assume that the carvings also dated to this period, but the history of Dunadd must give us pause. Long after domestic occupation had ceased, there are hints in the archaeological evidence that people continued to return to it on a periodic, possibly seasonal basis. Feasting debris testifies to major gatherings in the tenth and eleventh centuries. The fact that royal business continued to be enacted at Dunadd as late as the sixteenth century demonstrates the length of its political 'after-life' (Lane & Campbell 2000, 96–7). It is possible that Trusty's Hill also retained some form of political significance (as a site of assembly, legal proceedings or political ritual) long after it had ceased to be permanently occupied, and if so, then the carvings could have been added to the rock outcrop at any time, to augment the existing staging for political drama. Improved understanding of the archaeology of the fort will help contextualise the carvings but the only sure way to date them is on the basis of their style. Unfortunately the dating of Pictish sculpture is far from settled. Further work on the stylistic details of both Class I and Class II symbols will surely help to refine the dating of the Trusty's Hill pair. For now we can assign them most easily to the period of Class II, i.e. late seventh at the earliest and more probably eighth to ninth century, if not later (certainly so, if the possible Norse connections of the Trusty's Hill dragon, are accepted).

Archaeological evidence suggests that Trusty's Hill was abandoned for domestic occupation long before the time stylistic evidence indicates the carvings were made in the rock. By this time the site itself may have accrued legendary significance. Place-name evidence in the south-west testifies to an interest among the tenth-century Britons, who had recently re-gained political control of the area, in the heroic figures of their legendary past. The use of the element *caer* in the names of the forts Caerlaverock and Carwinley suggests they were likely coined in the tenth or eleventh century, though they are named

for sixth century historical figures famous in later literary tradition: Llywarch Hen and Gwenddoleu ap Ceidio (Watson 1926, 367–8; Koch 1997, xxxii–xxxiii, n.3; Hicks 2005, 92; Phythian-Adams 1996, 85). Such coinings reflect not simply an 'antiquarian' interest in local history, but are likely to have had explicit political connotations. We do not know the ancient name of Trusty's Hill (this name being a modern coining), unless it is preserved in the name of nearby Cardoness Castle, but it is possible to see in the carvings a similar impulse to tap into sources of ancient authority at a time of political and social disruption (it is worth considering the possibility that the use of symbols on late Pictish cross-slabs may, similarly, reflect a conscious appeal to ancient authority, rather than a simple continuity from earlier usage).

The political and ethno-linguistic history of Galloway is not well understood but one thing is certain: it is complex and multi-layered. Changes of political regime and influxes of settlers meant that old orders were repeatedly over-turned, new identities were forged and contested. Material culture was a means of constructing and displaying such identities. The carvings at Trusty's Hill must be seen as part of this process, even if they remain for now, a conundrum. It is odd indeed that they overtly emulate the art of the one ethno-linguistic group not known to have been present in this ethnically diverse area. The Trusty's Hill double-disc and dragon are both like and unlike their Pictish models. There is something eclectic and improvisational about them. They are in key respects *sui generis*.

The precise nature of the authority invoked at Trusty's Hill is hard to know. On a more general level, dragon-slaying symbolism was polyvalent and might separately or simultaneously signify, for instance, the triumph of good over evil, the virtue of the heroic warrior, the authority of the ancient past, or, the promise of treasure (or inversely, the death that is the inevitable consequence of the pursuit of treasure and/or armed conflict for material gain). Conflicts with dragons, when not underground, in caves or under water, were frequently depicted as occurring on hilltops, which might have made this a particularly suitable site for such an allusion.

Kopár (2012), in a detailed study of the iconography of Viking Age sculpture in Man and Anglo-Scandinavian areas of northern England, has examined the political integration and cultural adaptation and assimilation of Scandinavian settlers in areas immediately adjacent to Galloway from the later ninth century onwards. She sees the sculpture in these areas as 'cultural documents of an intellectual process' (2012, xxi), their creation and reception a process of 'intercultural dialogue'

which may have parallels to what was happening at Trusty's Hill. Kopár argues that the use of mythological or heroic references from pagan Norse mythology on these Christian monuments has a range of motives, from the general to the specific. The depiction of ancient heroes may reflect a genealogical assertion by patrons who claimed descent from the legendary figure in question. The presence of such a hero may constitute an exhortation to the audience to live up to the heroic deeds of their forebears. Her arguments would apply equally if the dragon were Anglo-Saxon, Gaelic or Brittonic. Following others, Kopár also argues that many motifs from pagan mythology were imbued with additional meanings within the new Christian dispensation, thus Sigurd the dragon-slayer could be seen as an old covenant prefiguration of St Michael and his conflict with the Serpent of the Apocalypse, and more generally a symbol of the triumph of good over evil (2012, 53–6). A syncretic visual tradition emerged in which individual images might bear multiple meanings: not 'either/or', but 'both/and'. In this context, the impaled dragon at Trusty's Hill could bring to mind dragons who were emblems of chaos, guardians of treasure, or simply an ordeal through which the hero might prove himself – whether these were the Norse Fafnir, the worm slain by the Anglo-Saxon Sigemund, or dragons of local Celtic tradition – and simultaneously, to the Christian, elicit thoughts of monsters slain by saints, both universal (Michael) and the more local (numerous British and Irish saints, including from Pictland, Serf of Dunning, Perthshire), and even by God himself, who, as Ross Trench-Jellicoe reminds us *(pers. com.)* 'with his sword shall punish Leviathan … that crooked serpent' (Isaiah 27:1).

Chapter 7

Discussion

The stratigraphy and chronology of Trusty's Hill

Prior to the 2012 excavation, Trusty's Hill was little more than a curiosity, encumbered somewhat by the disappointing results of the previous excavation. This had unfortunately failed to recover sufficient evidence to convincingly explain why Pictish Symbols had once been carved into an outcrop of rock at the entranceway to the summit of this hillfort. The meagre assemblage of artefacts recovered in 1960 indicated a rather modest farming community and provided no insight as to the context for the Pictish inscription. Other than the lower half of a granite rotary quern, which merely suggested occupation at some point *after* 200 BC, the archaeological evidence simply could not pin down when the summit of Trusty's Hill was occupied, let alone the status or nature of occupation. It is thus understandable that the only other fact established by the 1960 excavation, that the summit was encircled by a vitrified rampart, was employed to concur with the theory that the carvings were the work of a Pictish raiding party commemorating a fallen leader responsible for the fort's fiery demise, despite the recognised implausibility of a monumental mason in a raiding party (Thomas 1961, 60 & 68). While the new evidence recovered from the site offers a more complex explanation, perhaps one of the most surprising aspects of the 2012 excavation is that the new radiocarbon dating evidence demonstrates that Charles Thomas was correct in his interpretation that Trusty's Hill was occupied over two phases, first in the Iron Age and then in the post-Roman period (1961, 66–8).

However, before this evidence is explored, it is probably necessary to explain why the 2012 excavation recovered so many more finds than the 1960 excavation. For a start, the 2012 excavations reached a greater depth than the 1960 excavations. By fully excavating the depth of the occupation deposit encountered in Trench 4 in 1960, the latest excavation revealed not just bedrock but the collapsed unburnt stone face of the rampart beneath. The evidence also showed that the stone rampart apparently encountered just below the surface in

Trench 5 in 1960 was in fact the interior rubble collapse of the rampart rather than the rampart itself. The recovery of a significant number of artefacts in 2012 from the backfill deposits of Trench 4, notably the Anglo-Saxon style horse harness mount (see Chapter 4), also demonstrated that the previous excavation had not recovered the full assemblage of artefacts contained within the deposits it encountered in 1960. This was almost certainly due to the scarce resources and torrential rain that the previous excavation endured (Thomas 1961, 60; *pers. comm.)*. On the one day it rained during the 2012 excavation, it was noticeably much more difficult to observe artefacts in the now very sticky dark soil deposits, even when sieving. Fortunately, the 2012 excavation was overwhelmingly conducted in ideal sunny dry conditions, which, together with greater volunteer and professional resources and the employment of a large dry-sieving table for almost the entirety of the excavated soil deposits, maximised the recovery of artefacts. Other than topsoil, almost the only excavated soil deposits not sieved on site during the excavation were those deposits taken for palaeo-environmental assessment. The subsequent process of wet-sieving, sorting and assessment recovered several important artefacts including clay mould fragments and an Iron Age glass bead. Furthermore, while the two apparent caches of large rounded stone pebbles in Trench 4 represent more the deposition of backfill after the 1960 excavation than direct stockpiles, this concentration of distinctive unburnt stones enabled identification of similar large rounded pebbles in undisturbed deposits in the same trench on the eastern side of the summit which might otherwise have gone unnoticed. This suggests that these had been deliberately collected and brought to the site for use during the occupation of the hillfort.

However, the 2012 excavation of the previous trenches was not entirely successful. While the reexcavation of Trenches 4 and 5 revealed startlingly different results from that yielded in 1960 and the re-excavation of Trench 2 provided greater detail of what was previously encountered, the re-excavation of Trench 6 did not recover any new evidence at all. Indeed, it was difficult to reconcile the single uniform deposit encountered within the rock-cut ditch with the stratified deposits exposed during the 1960 excavation. Nor was it possible, owing to stone inclusions, to extract a suitable sample from the homogenous ditch fill deposit for the analysis of soil micromorphology. Due to the difficulty in reconciling the 2012 survey plan (Fig. 2.1) of Trusty's Hill with the 1960 plan (Fig. 1.7), which resulted in an aborted Trench 4 to the north of the correct location, it

was difficult to confidently locate Trench 6 and it may be that the re-excavation of Trench 6 did not extend beyond the sections of the original trench. It was also not possible within the time available in 2012 to reexcavate any other of Thomas' trenches, especially his Trench 3 located immediately behind the inscribed stone outcrop (Fig. 1.7). In this trench Thomas did not excavate below the rubble collapse from the rampart above and thus the function and nature of this lower enclosed platform remains unknown.

The excavation of Trench 4, along with its adjacent aborted area to the north, confirmed that stonerobbing had removed traces of the rampart from the eastern side of the summit. This corroborates Frederick Coles' remark that the stonework around the summit had been depleted over the course of the nineteenth century (1893, 173–4). Most of the rubble was presumably removed from the site for construction of stone dykes around Trusty's Hill, while some was no doubt used for the sheep-pen and other relatively modern structures previously recorded as overlying the rampart itself (Thomas 1961, 64; Fig. 1.8).

Despite these previous disturbances of the site, a significant quantity of securely stratified artefacts was nevertheless recovered in 2012, the vast bulk of the assemblage from Trenches 4 and 5 on the east and west sides of the summit respectively. Aside from a modest amount of modern material recovered from the topsoil, there were also a couple of anomalous modern finds within the eastern trench which confirm the horizon that Charles Thomas reached in 1960. A shard of modern glass recovered from the sondage through one of the earliest occupation deposits lay directly below one of the circular features cut through the overlying layer (Figs 2.5 & 2.9). This modern contamination indicates that these two circular features comprised backfill from probing undertaken during the 1960 excavation (Thomas 1961, 63). A fragment of modern tinfoil recovered from the matrix of the interior rubble collapse demonstrates that this deposit had been excavated and backfilled in 1960. The excavation of these backfill deposits, as well as the more obvious backfill which presumably represented that part of the occupation deposit excavated in 1960, revealed underlying archaeological remains that accord with the 1960 record (Thomas 1961, 63–4; Figs 1.8 & 2.9). In both Trenches 4 and 5, the collapsed burnt rubble of the rampart sealed dark soil deposits that sealed the collapsed interior stone face of the rampart that sealed the construction bed of the rampart's foundation trench (Fig. 3.5). That this same sequence of stratified deposits was revealed on both the eastern and western sides of the summit, including deposits

unexcavated in 1960 (Figs 2.6 & 2.13), demonstrates that this sequence originated from the occupation of the summit rather than simply the backfilling of Thomas' trenches. This stratigraphy (Fig. 3.5) tied to the construction and destruction of the summit rampart at opposite sides of the hill, thus offers insight into the occupation of the summit as a whole rather than simply localised deposition.

The radiocarbon dating evidence (see Chapter 3) and single Iron Age glass bead fragment (see Chapter 4) recovered from the west side of the summit indicates initial occupation of Trusty's Hill around 400 BC. However, it is unlikely that the summit rampart originated at this time. An early sixth–early seventh century AD date was obtained from the construction layer beneath the rampart in Trench 4 and another early sixth–early seventh century date was taken from the vitrified rampart itself in Trench 5. Unless the construction of the timber-laced rampart took almost 1000 years to reach the east side of the summit of the hill from the west, the likeliest explanation is that the Iron Age material, which was found solely within the foundation trench of the rampart on the west side, is residual. It was probably swept up from the interior of the site and included in the construction layer that formed the primary deposit of the rock-cut shelf around the perimeter of the summit. Soil micromorphological analysis of this construction layer on the west side revealed that the accumulation of this deposit was rapid and that trampling was not evident (see Chapter 5) indicating that this was a deliberate dump of materials to provide a level foundation base for the timber frame and stone core of the rampart. The site may well have been fortified during the Iron Age, but since the foundation trench – and quarry source – for the timber-laced stone rampart appears to have comprised of a rock-cut shelf around the entire perimeter of the summit, where one would expect the Iron Age rampart to have been located, it is unlikely that any such remains survive.

The Iron Age occupation of Trusty's Hill appears to have been followed by a hiatus of some centuries, as no evidence was encountered for occupation between the fourth century BC and the late fifth–early sixth centuries AD. Bayesian analysis of the radiocarbon dates coupled with the stratigraphy (see Chapter 3) suggest that the hill was re-occupied at some point between the late fifth and mid-sixth century AD; and subsequently fortified with a timber-laced rampart around its summit at some point between the early sixth century and the first quarter of the seventh century AD. Given the refinement of radiocarbon date ranges when compared with dendrochronological results (Barber & Crone 2001, 71–4), the

duration of occupation and fortification of the summit of Trusty's Hill may well have been much shorter than these date ranges can demonstrate.

The consistent stratigraphy apparent on both the eastern and western sides of the summit, spanning the period from prior to the construction of the timber-laced ramparts to their destruction, represents securely stratified archaeological contexts for the artefact assemblage (Fig. 3.5). Within this sequence the most surprising discovery was that the dark soil, from which most of the artefacts were recovered, separated the un-burnt collapsed interior stone face of the rampart from its burnt and vitrified rubble core collapse. This indicates that the dark soil and its contents were trampled in during a prolonged phase of destruction prior to the firing of the rampart core and is supported by Laura Hamlet's analysis of the soil micromorphology (see Chapter 5). This material likely derived from the removal of structures and the disturbance of living/working areas to provide fuel for the rampart destruction. While the final deposition of the artefact assemblage therefore occurred during the destruction of the summit, these objects ultimately derive from the occupation of the summit immediately prior to its immolation. The vast bulk of the diagnostic artefacts can either be dated to, or are consistent with, the early medieval period (see Chapter 4). But interestingly, those artefacts that can be closely dated, such as the E Ware pottery sherd and the decorated metalwork, consistently date to between the late sixth and early seventh centuries AD. Refining the span offered by the radiocarbon dating results alone, the stratigraphy and datable finds suggest that the fortification of the summit at Trusty's Hill probably took place in the later sixth century AD and its subsequent destruction took place during the first quarter of the seventh century AD.

The latest date in the radiocarbon sequence, the AMS date spanning the late seventh–late eighth century AD, extracted from a fragment of hazel wood in the primary fill of the rock-cut basin, might be taken to infer that this feature on the north-east side of the entranceway originates after the destruction of the timber-laced rampart enclosing the summit above. However, a stone bank, comprising part of a horn-work along the eastern edge of the entranceway, was laid out over the stone revetment leading into the rock-cut basin and though this did not survive to a height that might demonstrate that it entirely blocked access into the basin, it certainly implies that the rock-cut basin pre-dated at least part of the architecture of the hillfort. The radiocarbon date in fact only demonstrates that the use of the rock-cut basin continued after the destruction of the fort. The record of a hoard of

silver coins of Edward VI and Elizabeth I found nearby to the carvings (Gordon 1794, 351) very likely from the rock-cut basin itself, suggests continued use of this feature, presumably as a local votive well, until as late as the sixteenth century. The late AMS date might be taken to confer corroboration for a late seventh to late eighth century AD date for the rock carvings that lie on the opposite side of the entranceway (see Chapter 6). However, as will be discussed below, given the archaeological context of the rock-cut basin and rock carvings, which flank either side of the entranceway to the summit, an earlier date for the carvings contemporary with the occupation of the summit around the late sixth or early seventh century AD is more likely.

The layout of the hillfort

The topographic survey provides a modern accurate plan of the site (Fig. 2.1) and refines the plan that Thomas produced during his excavation in 1960 (Fig. 1.7). As Thomas recognised, Trusty's Hill comprised a fortified citadel around the summit of a craggy hill with a number of lesser enclosures looping out along lower-lying terraces and crags (Fig. 7.1).

Beyond the evident upstanding remains, it is difficult to extrapolate the internal layout of the fort given the limits of both the 1960 and 2012 excavations. While the assemblage of artefacts, which is discussed in detail below, included plentiful evidence for craft activities, particularly a range of metalworking, there was an underlying domestic character evident to the occupation of the summit. The faunal assemblage, dominated by cattle bone, an assemblage of charred barley and oats, and the lower half of a rotary quern recovered in 1960, all suggest food preparation and eating was undertaken within the summit enclosure. This collection of material corresponds to evidence of domestic occupation seen at other contemporary settlements such as Buiston Crannog, Mote of Mark, Dunadd and Edinburgh Castle Rock (see Chapter 5; O'Sullivan 2000, 155; Crone 2000, 157; Laing & Longley 2006, 176; Noddle 2000, 226; Lane & Campbell 2000, 230; Boardman & Ramsay 1997, 195). While only traces of domestic midden and hearth material were recovered, interestingly the dominance of oak, hazel and ash in the charcoal assemblage recovered from the dark soil deposits points towards the burning of structural timbers and wattle across the summit (see Chapter 5).

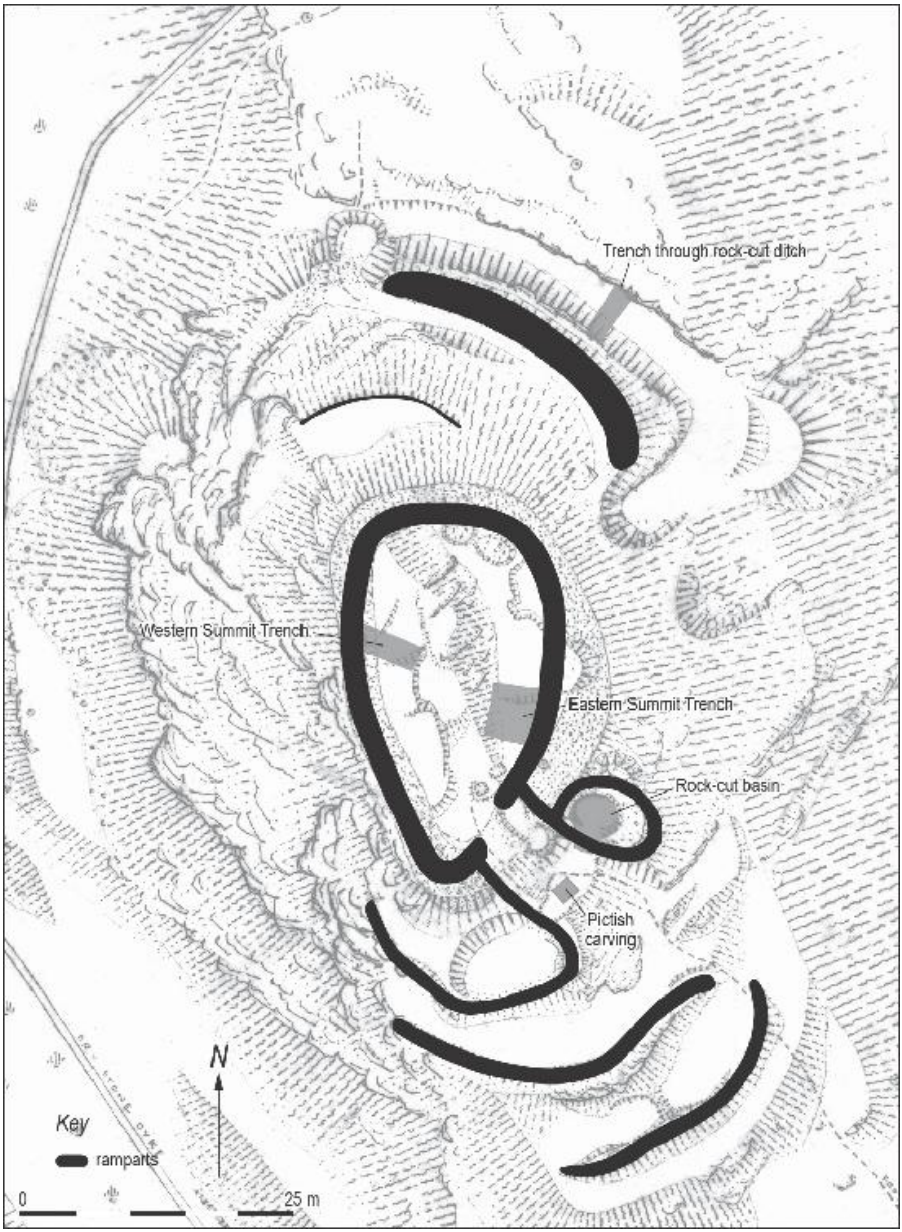

Fig. 7.1. Nucleated fort layout of Trusty's Hill. © RCAHMS/DGNHAS

The fortified citadel on the summit of the hill is divided by a ridge of rock outcrop that separates an upper plateau on the western side from a lower shelf along the eastern edge (Fig. 7.1). The north-west to south-east aligned outcrop effectively divides the citadel in two. Whether these two areas were discrete platforms for structures or outdoor activities is impossible to establish securely from the evidence to date. However, the presence of timber buildings across the western

summit area is tentatively suggested by the two rock-cut features located in the eastern end of Trench 5; a linear groove and a large post-hole (Fig. 2.12). Unfortunately, no artefacts or otherwise datable material were recovered from either of these features, which were found immediately beneath the topsoil. It is possible that these were contemporary with the early medieval settlement given the nearby debris dated to the sixth/seventh century AD contained in the deposit abutting the rampart core. However, given the Iron Age debris swept into the adjacent part of the foundation trench of the rampart, it is equally plausible that one or both of these features could derive from earlier occupation in the Iron Age. The large post-hole indicates a post-set structure, though it is not clear that this feature is associated with the linear groove. Indeed these may represent separate structures. While it is impossible to extrapolate what kind of structure(s) these features belonged to, it is worth observing that the upper western plateau of Trusty's Hill measures 25 m long and 7.5 m wide. If these dimensions define the maximum dimensions of a building that may have once stood on the summit here, this would not be very different to the dimensions of high status halls in other parts of the country (Laing & Longley 2006, 171). It is certainly a sufficiently large enough area to easily contain a building such as the 8.5 × 4 m rectilinear building that was partially revealed at the Mote of Mark and which dates from the sixth/seventh century AD *(ibid.),* or the 9 × 5 m post-built hall dating to the early sixth century that was unearthed at Rhynie in Aberdeenshire (Noble *et al.* 2013, 1142). During excavations at Lockerbie Academy, a post-built structure measuring 12 × 5 m and pre-dating an overlying seventh century AD Anglian hall was considered to potentially belong to an earlier British tradition (Kirby 2011, 47–53). Likewise, the eighth century AD hall recorded beneath Cruggleton Castle, either in its original 5.95 × 3.69 m form or its later 12.5 × 4 m extended form (Ewart 1985, 16–20), could have fitted within the summit of Trusty's Hill. Interestingly this building is associated with the lords or self-styled kings of Galloway (Ewart 1985, 22; Brooke 1994, 79) at a time when Cruggleton Castle was perhaps the principal seat of power in Wigtownshire (Ewart 1985, 6; Oram 2000, 245). The western summit area of Trusty's Hill is therefore sufficiently large to accommodate an early medieval building of some stature. While this is plausible, the topographic survey of the site may also be read to suggest several possible building platforms across the upper western plateau (Fig. 2.1). Obviously a much more extensive excavation area across this part of the site would be required to actually demonstrate the form and extent of any

structures.

Within the lower eastern shelf of the summit which measured 23 m long and 6.5 m wide, an eastward spread of rubble was encountered in Trench 4 that was stratigraphically distinct from the evident inward collapse of the outer rampart core. The eastward spread likely derived from the collapse of a dry stone structure to the immediate west of Trench 4. This structure may have been an internal wall that formally separated the upper western area from the lower eastern shelf of the summit and may relate to a functional separation of these areas. While the bulk of the artefacts occurred in deposits associated with the prolonged destruction of the ramparts, it is interesting to note that the evidence for metalworking was predominantly recovered from this lower area on the eastern side of the summit. Although this may simply reflect the larger excavation trench here, the evidence suggests that the lower shelf of the summit was used as a workshop or industrial yard. Interestingly, the vertically set slabs of a three-sided structure was evident, albeit sadly unexcavated, within this lower shelf of the summit (Figs 1.8 and 2.5) and recalls the three-sided structure associated with metalworking at the Mote of Mark (Laing & Longley 2006, 19). The inhabitants may have chosen to differentiate domestic and industrial zones of the summit in a similar, if perhaps slightly less cramped manner, to the Mote of Mark (Laing & Longley 2006, 15 & 20). Similarly, the constricted area of the summit suggests that the settlement at Trusty's Hill, though hosting a workshop, was still in essence a single household settlement, not a multiple household settlement; an estate centre rather than a village.

Surrounding the summit was a timber-laced dry-stone rampart that was approximately 2.3 m wide prior to the collapse of its exterior and interior stone faces. The partial excavation of the ramparts on the east and west sides of the summit confirmed that much of the rubble core of the rampart had been vitrified, which can only occur within a stone structure that was originally timber-laced (Mackie 1976, 208). Carbonised material recovered from the rampart core, predominantly oak, but also hazel, willow, alder and ash (see Chapter 5), indicates that the ramparts had an internal timber sub-structure, perhaps incorporating oak uprights and wattle walling. This wooden sub-structure undoubtedly contributed some of the fuel that eventually allowed the vitrification of the ramparts to take place. But there were also small quantities of other charcoal and midden-type waste within the rampart contexts and these may represent the remains of midden material that became incorporated into the deposits at a later stage, additional packing material placed within the rampart at its

construction or indeed from added fuel materials packed into the exposed core during its destruction. The excavations also revealed consistent evidence for the timber sub-structure of the rampart in the form of large upright post-holes measuring 0.2–0.3 m wide. It was observed that the distance of 1.6 m between the two upright post-holes in the rampart on the east side of the summit was similar to the distance between small scoops evident in the rampart surveyed along the north-west side of the summit (Fig. 2.1) indicating that the timber structure exposed in Trenches 4 and 5 can be applied to the remainder of the unexcavated rampart. Interestingly, the width of the rubble core of the rampart on the east side also measured 1.6 m. This is not so different from the 1.4 m spacing between the horizontal beams observed in the timber-laced rampart at Dumbarton Rock, which also appeared to measure about 2 m in full width (Alcock & Alcock 1990, 110 & 112). It is worth noting that the measurements for the timberlacing at both Trusty's Hill and Dumbarton Rock broadly correspond to the Roman *passus* (5 Roman feet, or about 1.5 m) perhaps indicating the common use of Roman measurements into the seventh century (Smith 1875, 871). However, these measurements do not correlate with comparable ramparts from other contemporary sites such as the Mote of Mark where the inner core of the northern rampart was 2.4 m and the full width of the faced rampart was 4 m (Laing & Longley 2006, 8). The width of the initial early medieval dry-stone rampart around the summit of Dunadd was 3.9 m (Lane & Campbell 2000, 50), while the overall width of the summit rampart at Dundurn was 3.5–4 m (Alcock *et al.* 1989, 202). This perhaps points to competing traditions of measurement and rampart construction with the choice ultimately down to the individual builders or the availability of materials. By extrapolating the 1.6 m width between uprights from the post-holes observed in Trenches 4 and 5 it is possible to suggest that the rampart contained approximately 24 large oak posts; a substantial outlay in both human and material resources and certainly indicating the control of both.

Unlike the Mote of Mark (Laing & Longley 2006, 11), no direct evidence for horizontal timbers was recovered from the summit rampart at Trusty's Hill but this is probably due to the severe slumping of the ramparts (see Chapter 3). While the ramparts at Dunadd were not apparently timber-laced, they did comprise a rubble core of small angular stones faced on both the interior and exterior sides with large flat slabs (Lane & Campbell 2000, 50–1). The appearance of the rampart at Dunadd would not have been dissimilar to the summit rampart at Trusty's Hill. Thus, while the choice of

construction and size was a matter for individual architects, a similar impregnable appearance was undoubtedly sought and was likely a key factor in the reasons for adorning a northern British hilltop with a rampart.

It is important to emphasise that timber-laced ramparts such as at Trusty's Hill were not merely an elaborate garden fence, but were designed with a significant defensive function. Encountering timberlaced stone ramparts during his conquest of Gaul, Julius Caesar remarked that these greatly hampered his legions; the relatively flexible internal timberlacing serving to withstand their battering rams while the stone faces prevented the timber from being set alight (Wiseman & Wiseman 1980, 145). The defensive nature of the ramparts at Trusty's Hill are highlighted by other features. While the outer banks on the lower southern slopes of Trusty's Hill are less substantial, the 6 m wide rock-cut ditch and accompanying 3 m thick rampart on the northern side of the hill is much more daunting. This boundary together once posed an obstacle 9 m wide and at least 5 m high (see Chapter 2; Thomas 1961, 63). One might question its practicality as on its own it could be circumvented. But as a supplementary defence to the parapet of the timber-laced rampart around the summit above, which together with the naturally steep slope of the hill was probably another 5-6 m higher again, was a formidable barrier. Furthermore, the numerous slingstones recovered from the eastern side of the summit (see Chapter 4) indicate that it was not a passive form of defence that the inhabitants had in mind. As has been observed at other hillforts, the juxtaposition of slingstones with defences seemingly suited for their use is unlikely to be purely coincidental (Armit 2007, 33).

Notwithstanding its stout defensive qualities, there was nevertheless a significant and not altogether contradictory element of ostentatious display in the form of the wall constructed around the summit of Trusty's Hill. This is apparent in the ramparts and multiple roles of many such hillforts of the later prehistoric period (Bowden & McOmish 1987, 76; Hingley 1990, 96; Banks 2000, 273; Armit 2007, 36) and which no doubt continued to influence construction in the subsequent centuries of the early medieval period.

While the stone employed for the rampart was greywacke and was undoubtedly quarried from bedrock around the edge of the summit itself, the construction of the rampart required copious amounts of timber, predominantly oak, which had to be brought to site. This implies considerable resources to hand, including not just the skilled labour and draught animals to fell and transport this material but

substantial mixed woodland resources from which such timber could be extracted. As has been recognised elsewhere in Scotland (Tipping *et al.* 2006, 41), the control and conspicuous consumption of timber resources may have had as much to do with the exercise of power over local communities as the practicalities of constructing stout defences. One might observe the contrast between the relative ubiquity in the archaeological record of timber roundhouses in lowland Scotland throughout the Iron Age, which probably required long-term management of timber resources (Romankiewicz & Hunter 2013, 7) and the scarcity of settlement structures from the early medieval period, a divergence that may have begun as early as the third century AD, at least in eastern Scotland (Halliday 2006, 16). This may not only reflect the depletion of available timber resources following the peak in woodland clearance and agricultural activity evident across much of lowland Scotland during the latter centuries of the first millennium BC (Tipping 1997, 20–1; Armit & Ralston 1997, 192), but also the increasingly restricted control of timber resources in the hands of an elite. So, for example, the conspicuous use of timber to mark the royal Pictish site at Rhynie in Aberdeenshire (Noble *et al.* 2013, 1142) stands in stark contrast to low status forms of settlement in north-east Scotland, such as the early medieval Pitcarmick-type houses which were predominantly built of turf and stone (Carver *et al.* 2012, 184). Significantly, even where these survive in upland areas, they are extremely ephemeral in terms of their archaeological remains (Strachan & Sneddon 2012, 154). It might be observed that if these types of rectilinear houses, which yield no signs of material wealth, were the common form of architecture in lowland areas of south-west Scotland too, these would leave no archaeological visibility. This might explain the dearth of early medieval settlement in contrast to Iron Age settlement patterns even where land-use evidently persisted throughout the first millennium AD (Tipping 1997, 20–2). Where timber houses of modest status in south-west Scotland are encountered and that can be dated to between the fourth and sixth centuries AD, such as Whithorn or Dolphinton, these appear to have been light wattle or stake-walled rectilinear structures (Hill 1997, 70; Cook 2002, 77). Even the roundhouses enclosed within Buiston Crannog, which was interpreted as a wealthy farmer's settlement of the sixth century AD (Crone 2000, 165), were constructed of light wattle frames *(ibid.,* 162). This is in marked contrast to the use of post in the much larger cruck-framed building at Mote of Mark (Laing & Longley 2006, 171) or the pre-Anglian hall at Lockerbie (Kirby 2011, 47–54) that are likely to have been high status halls of the same period, again

reinforcing the notion that the control and conspicuous consumption of mature timber, along with other resources, was a mark of social elite status amongst the Britons during this time. Mature timber was of course employed for the substructure of the crannog at Buiston but it was observed that oak was not significantly used until Phase IV near the end of the sixth century AD hinting at social factors in the selective exploitation and employment of woodland resources outside the immediate environs of the crannog (Crone 2000, 163) . As settlement architecture during the Iron Age may have intentionally reflected the status of a settlement's inhabitants (Banks 2002, 32), so too during the early medieval period may settlement architecture have been strictly controlled by social customs in addition to purely economic factors.

Of course, the ability to mobilise the workforce and resources required to construct the fort at Trusty's Hill implies control of a significant food surplus, as has been observed in relation to other major contemporary constructions in south-west Scotland (Crone 2000, 164) . It may even be that the ostentatious display of agricultural wealth, particularly cattle, is manifested by the two outermost lower-lying enclosures that flank the south-eastern approach to the summit. The trench excavated in 1960 (Fig. 1.7) revealed no evidence of structures or occupation but simply a surface of weathered bedrock defined by an outer stone bank with an external revetment only, below a rock step to the north that was surmounted itself by a similar externally revetted stone bank (Thomas 1961, 61–2). There was none of the dark soil evident in this part of the site, which on the summit yielded numerous artefacts and environmental evidence for occupation. Furthermore, and unlike the enclosed area further upslope to the immediate west of the carved rock or the small enclosed terrace north-west of the summit which are both fully enclosed and may well have contained subsidiary buildings, the two outer terraces appear to have been open-sided to the south-eastern approach (Fig. 7.1). It therefore seems inherently plausible that their principal function was for corralling animals. While this no doubt served a prosaic function, keeping valuable and useful livestock at hand, ready for milking and shearing or butchering and consumption, it should also be borne in mind that this would make a significant measure of the agricultural wealth of the inhabitants readily apparent to anyone approaching the summit, which may have been deliberately intended as a very public expression of status, as envisaged at hillforts elsewhere (Waddell 2014, 142).

Further upslope, on the north-east side of the entranceway to the

summit, the re-excavation of Trench 2 revealed not the guard-hut that Thomas proposed but instead a rock-cut basin that collected surface water, as Thomas himself noted (1960, 65–6). Its form and location, outside the central summit enclosure and at the entranceway opposite the Pictish carvings, indicates that its purpose was not simply as a functional source of water. As a relatively shallow basin, only 0.8 m deep and 2 m across, and with no natural spring at its base it was quite inadequate for supplying sufficient water for the everyday needs of the household at Trusty's Hill. Its location outside the protective timber-laced rampart above also left it in an exposed location at the entrance, the weakest point in any defensive circuit and probably the place most likely to be the focus of an assault on the fort. It certainly appears to have been accessed from the entranceway as the arrangement of rounded granite boulders and stones that defined the southern edge of the rock-cut basin led south-west towards the entranceway in the direction of the carved rock across on the other side (Fig. 2.3). The continuance of a drystone revetment around the basin's northern edge indicates a significant effort to maintain a defined space and implies a degree of formality to the structure. The evidence unfortunately does not indicate whether the basin was visible in the open air or was hidden from view by some structure. Both possibilities point to interesting symbolic gestures. At some point during the occupation of the hillfort, a stone banked hornwork was built across the arrangement of stones leading out towards the entranceway. Given that only the base of this horn-work survives, it is unclear whether this bank blocked access entirely or simply created a new opening through which access to the rock-cut basin was controlled.

Excavation of the primary waterlogged deposit within the rock-cut basin was undertaken in 2012 and while an element of contamination may have occurred when this deposit was previously exposed (see Chapter 5), it had been left largely unexcavated in 1960 (Thomas 1961, 66). There is therefore no reason to doubt the integrity of the large pieces of carbonised wood recovered from the basin's fill. The wood suggests that some form of wattle structure was present near the basin. Oak stakes and hazel poles may have provided uprights with hazel and willow woven between them (see Chapter 5). A fragment of hazel wood provided a calibrated AMS radiocarbon date of AD 661–773 indicating that this wattle structure may relate to the continued use of the rock-cut basin after the settlement on the summit of the hill had been destroyed. In fact significant effort would have been expended to clear out the rockcut basin after the collapse of the

vitrified rampart above. The find of silver coins recorded nearby to the Pictish Carvings (Gordon 1794, 351), most likely from the rock-cut basin itself, might suggest that the reason for the continued use of this feature until as late as the sixteenth century was that it served as a place for votive offerings. It could well be that its existence and ritualistic significance even preceded the re-occupation of the site in the sixth century AD and originated during the earlier Iron Age occupation of the site. Certainly the horn-work overlying the revetment of the basin demonstrates that the basin predates this architectural demarcation. Despite the longevity of the hiatus between the Iron Age occupation of Trusty's Hill and its re-occupation in the early medieval period, it should be recognised that customs that owed more to Galloway's native Britonnic heritage than its latter Gaelic Norse veneer continued deep into the medieval period (Toolis 2004, 88). This is manifested, for instance, by the continued role of holy wells in Galloway (Morris & Morris 1982, 126–35), amongst other regions of Scotland, Britain and Ireland, that stem from earlier Iron Age customs and include examples such as St Queran's Well near Cargenbridge to the south-west of Dumfries, which yielded a comparable assemblage of coins to that recovered in the late eighteenth century from Trusty's Hill (Dudgeon 1892, 63; Stevenson 1988, 92; Barclay & Fojut 1990, 71; Gordon 1794, 351). Given that there is no reason stratigraphically why the rock-cut basin at Trusty's Hill could not have been originally created in the sixth century AD, if not during the initial occupation phase around 400 BC, traditions related directly to this feature may have continued on into the eighth century AD and beyond.

It is nevertheless impossible to know the precise function of the well at Trusty's Hill during the sixth century. On analogy with Dunadd in Argyll we can suggest its use perhaps in anointing. A clear parallel can also be drawn with the well at the Pictish fort of Burghead in Moray, which appears to have positioned close to the line of the great rampart of the fort (Feachem 1977, 139). Here, the covered well was found to contain a number of early medieval and post-medieval objects when opened in the early nineteenth century. This assemblage included two slabs, one with a Pictish bull and one with a cross and knot-work, a bell metal jug and a number of Spanish coins (Ordnance Survey 1870, 19). It may also have contained a Celtic head (Foster & Cross 2005, 44, fig. 23). As a significant feature with undoubtedly symbolic meaning that attracted votive offerings, the Burghead well's biography continued long after the Pictish fort's occupation.

The ceremonial nature of this part of the approach to the summit is

further supported by the inscribed stone on the opposite south-west side of the entranceway from the basin (Fig. 7.1). While the cultural context, origin and connotations of the carved symbols at Trusty's Hill (see Chapter 6) will be discussed in further detail below, it is important to state that the symbols are genuine, and the 2012 excavations have provided contextual evidence that firmly supports a late sixth or early seventh century date for these. Since the destruction of the timber-laced rampart around the summit resulted in the utter collapse of the gateway, which is now lost amongst a spread of collapsed rubble, it is unlikely that the elaboration of the entranceway as represented by the horn-work was built after the summit rampart was destroyed. There was simply no entrance or indeed hilltop citadel to elaborate an approach to. On balance it is therefore likely that both the rock-cut basin and carved symbols can be tied to the occupation of the summit during the late sixth or early seventh century. These provided focus to the entranceway in much the same way as the combination of rock-cut basin and a Pictish inscribed rock face at the entranceway to the summit citadel of Dunadd (Lane & Campbell 2000, 13). The combination of the carvings and the rock-cut basin, facing each other, indicates that the approach to the summit at Trusty's Hill passed through a symbolically charged entranceway where the duelling of inscribed images on the rock face was mirrored in the features of inscribed stone and basin. The ritualised entranceways to the summit citadels at both Trusty's Hill and Dunadd recalls the complex entranceways apparent in many earlier Iron Age hillforts that appear to emphasis a literal rite of passage between the outside world and the interior of a hillfort (Bowden 2006, 433).

Trusty's Hill: a nuclear fort

Nuclear forts were a type of elite secular settlement that emerged in Scotland during the early medieval period. They can be defined as a fortified citadel on the summit of a craggy hill, which formed the nucleus, around which were a number of lesser enclosures looping out from the summit along lower lying terraces and crags of the hill (Stevenson 1949, 190–1; Alcock *et al.* 1989, 206). While the plans of individual nuclear forts may differ according to the rocky topography of the individual sites, such as, for instance, the number of lesser enclosures; what matters in distinguishing these hillforts from their Iron Age predecessors is the hierarchical organisation of space (Alcock *et al.* 1989, 211). Trusty's Hill recognisably conforms to the definition above of a nuclear fort and the evidence gathered from the 2012 survey and excavation confirms what has long been tentatively

suggested (Thomas 1961, 67; Harding 2004, 209) and allows more confident comparisons to be made with the contemporary early medieval nuclear fort at Dunadd in Argyll (Fig. 7.2).

Dunadd is probably the best understood nuclear fort in Scotland. Like Trusty's Hill, Dunadd developed from an earlier Iron Age settlement first occupied around the fourth or third centuries BC. It is unclear whether there was a hiatus between the later occupation of the site around the turn of the first millennia BC/AD and the creation of a summit dun in the fourth or fifth centuries AD (Lane & Campbell 2000, 89–92). However, by the sixth or seventh centuries AD other enclosures had been added to the summit enclosure to create a nucleated fort which appears to have been continuously inhabited until the ninth century, and perhaps sporadically thereafter (Lane & Campbell 2000, 97). Other nuclear forts demonstrate similarities to this chronology. The timber-laced ramparts that defined the summit citadel and surrounding wider enclosure at Clatchard Craig in Fife appeared to have been built no earlier than the sixth or seventh century AD, though some of the finds may indicate a prior Iron Age settlement (Close-Brooks 1986, 149). Occupation of Dundurn in Perthshire, on the other hand, appears to have only begun during the seventh century AD with the settlement not assuming the character of a nuclear fort until the eighth century (Alcock *et al.* 1989, 204–6). Likewise the occupation of Dumbarton Rock, another craggy hill that lends itself to a hierarchical organisation of space, appears to have begun no earlier than the late fifth century AD but with timberlaced fortification not apparent until perhaps the late sixth century (Alcock & Alcock 1990, 112–16). Edinburgh Castle Rock, while not demonstrated as such, nevertheless occupies a suitable setting for a nuclear fort and has yielded plentiful evidence for the continuity of a high status settlement between the Iron Age and the fifth–seventh centuries AD and beyond (Driscoll & Yeoman 1997, 29, 43–5 & 228). Likewise Bamburgh Castle Rock in Northumberland, again another potential contender for a nucleated fort, appears to have been continuously occupied since the pre-Roman Iron Age prior to it becoming the principal stronghold of the kingdom of Bernicia (Hope-Taylor 1977, 292 & 370). The results from excavations of a variety of enclosed settlements in Strathdon in Aberdeenshire indicate a spate of construction in both entirely new sites and previously occupied Iron Age hillforts between the late fourth and mid-seventh centuries AD with occupation of only a selection of the larger forts continuing into the eighth century (Cook 2011, 216–18; Noble *et al.* 2013, 1143).

The radiocarbon dates from Trusty's Hill demonstrate a comparable

sequence of re-occupation and fortification of the site over the course of the sixth century AD. This reflects wider social trends apparent across northern Britain and indeed other peripheral areas of the Roman Empire around the middle of the first millennium (Noble *et al.* 2013, 1144–5), though interestingly while comparable hierarchicallyorganised fort layouts to those in Scotland are apparent in Northern Wales and Continental Europe, there are none in southern Britain (Alcock *et al.* 1989, 211–13). Trusty's Hill is significant because it may preserve the arrested development of an early version of a nucleated fort in Scotland, specifically that of a nucleated fort that did not develop over the course of the seventh and eighth centuries. So while it may appear diminutive now to the fully developed early medieval nucleated forts at Dunadd or Dundurn, it may not have been so during the late sixth–early seventh centuries (Fig. 7.2).

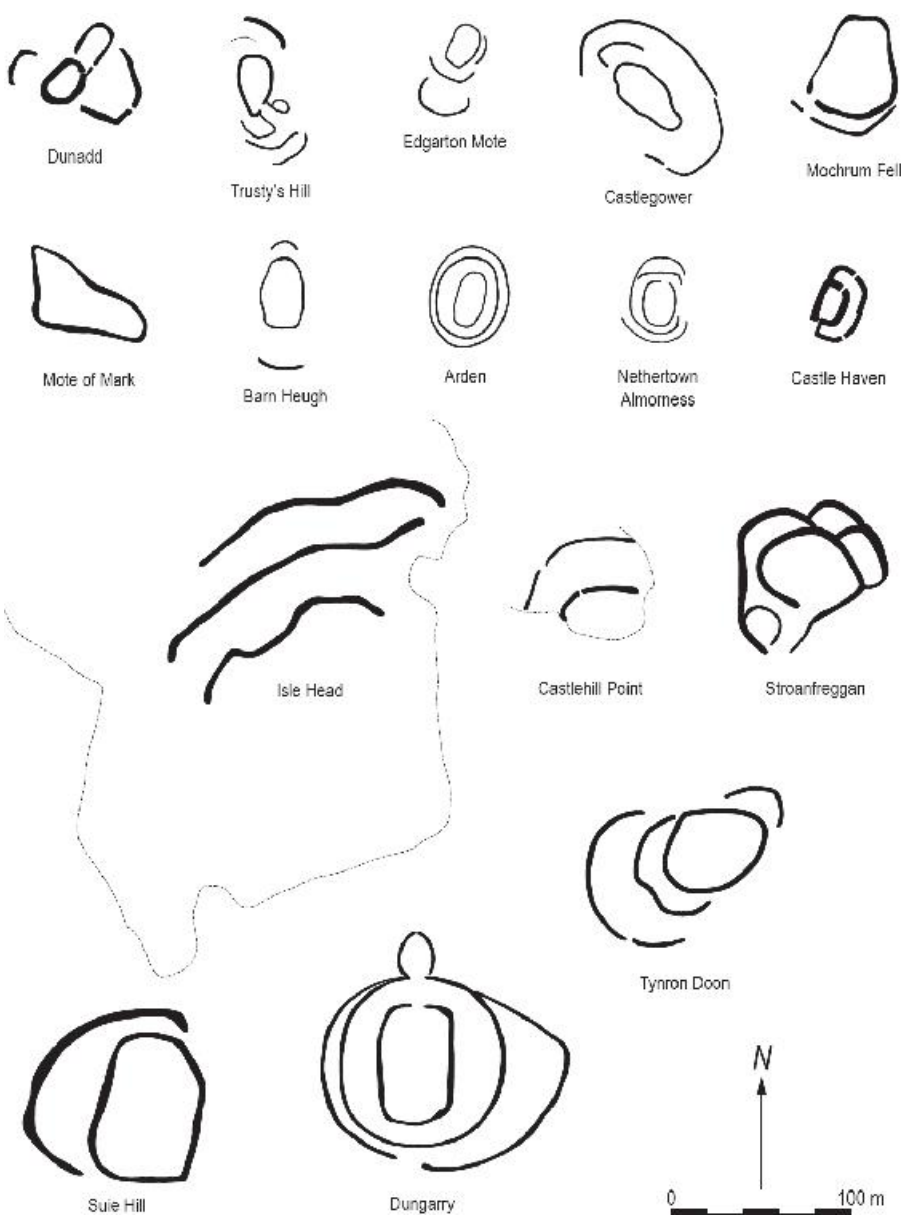

Fig. 7.2. Comparative plans of the late sixth–early seventh century phases of the nucleated forts at Dunadd and Trusty's Hill, together with comparative plans of courtyard, nucleated and other potential early medieval forts in Galloway

However, even given Trusty's Hill's relatively short span of development over the sixth and early seventh centuries, culminating in the construction of the summit ramparts around the late sixth century, it is apparent that there were several subphases of building during this time. This is best illustrated where the horn-work overlies part of the stonework enclosing the rock-cut basin. While largely

unexamined in 2012, the outer ramparts likely represent a piecemeal development of the site subsequent to the construction of the summit rampart. This steady drive to develop or improve the fort over time is directly comparable to Dunadd and Dundurn. It is impossible to know the sequence of construction given the present evidence. The lower enclosures and northern rock-cut ditch may postdate the construction of the timber-laced rampart, or it may equally be the case that some of the outer banks and features originated during the initial reoccupation of the hill in the sixth century. It is equally unknown what features existed on the summit prior to quarrying and construction of the timber-laced rampart. Were earlier Iron Age ramparts apparent? Were these embellished in some way during the initial re-occupation of the site.

It is unlikely that any of the visible ramparts or banks derive from the Iron Age occupation of the hill. Thomas' sequence of two widely separate phases of fortification is unconvincing. Thomas attributed the northern rock cut ditch to the initial Iron Age occupation but this is questionable given the deposition of sediments seen in the published section drawing of the feature (1961, 67; Fig. 1.10). By analogy with ditch sections examined during earthwork experiments at Wareham (Evans & Limbrey 1974, 178) and Overton Down (Bell *et al.* 1996, 234–5), and similar results recovered from the boundary ditch of the Iron Age promontory fort at Carghidown in the Machars of Galloway (Fouracre 2007, 294–6), the very shallow depth of primary ditch fill evident in Thomas' sections suggests that Trusty's Hill's rockcut ditch was open for no more than a year or two before the revetted stone bank above had collapsed into it. There were no signs of subsequent re-cutting of the ditch. This is more consistent with the ditch being linked with the short single phase of early medieval occupation. It is probable that this and the additional enclosing works were added to the fort during the narrow period during the late sixth century when the summit rampart was constructed and the early seventh century when the summit rampart was destroyed. Given the comprehensive destruction of the summit rampart it is unlikely that the outer ramparts, enclosures or ditch were constructed after this. The layout of the ramparts and outer banks is rather more convincing as a unitary system of fortification of the site, albeit one that developed over some years.

While Trusty's Hill's nuclear layout should be viewed in the context of other similar high status settlements in early medieval Scotland, it is possible that the form and layout of Trusty's Hill is also related to a local group of 'courtyard forts', including Nethertown of Almorness,

Dungarry and Suie Hill, in the southern Stewartry district of Galloway (Truckell 1963, 94–5; Fig. 7.2). At both Dungarry and Suie Hill, dry-stone ramparts form an oblong enclosure around each summit while lower-lying dry-stone outworks enclose at least one flank of each hill (Coles 1891, 395; 1892, 118). The summit of Nethertown of Almorness is also enclosed by an oblong stone rampart while stone and earth outworks, not concentric to the summit rampart, enclose lower-lying terraces of varying breadth with a particularly wide terrace enclosure apparent on the northern side (Coles 1892, 129). Another comparable site to Suie Hill, Dungarry and Trusty's Hill is Stroanfreggan hillfort which lies in the northern area of the Stewartry district. This comprises a circular dry-stone summit enclosure associated with a number of separate dry-stone outworks enclosing lower-lying terraces and flanks (Coles 1892, 166–7; Feachem 1977, 131). These are not the only forts in the Stewartry district of Galloway where comparisons have been made with Trusty's Hill (Feachem 1977, 129–31; see Fig. 7.2). A few miles to the east and south-east of the Fleet Valley lie the hillforts of Arden and Barn Heugh which both comprise oval summits enclosed by dry-stone ramparts accompanied by lower-lying outworks (Coles 1893, 133 & 145). Whether any of these unexcavated forts are contemporary with or precede Trusty's Hill remains to be discovered. It is possible that, like the spate of hillforts that emerged in Strathdon in Aberdeenshire between *c.* AD 400 and 650 (Cook 2011, 216–18), a comparable pattern of high status fortified settlements emerged in Galloway, and particularly the Stewartry district of Galloway, in the immediate post-Roman centuries.

There are certainly a number of vitrified forts in the Stewartry that share strong resemblances with Trusty's Hill (Feachem 1977, 129–30; Fig. 7.2). While timber-laced forts, or vitrified forts as they are often recognised in the archaeological record, are not culturally or chronologically distinct – being distributed widely across Europe from as early as the eighth century BC (Mackie 1976, 209–10; Ralston 2006, 143) – they are not so common in Dumfries & Galloway. Richard Feachem identified eight amongst a group of 26 sub-rectangular forts distributed across Galloway (1966, 76), though only six, including Trusty's Hill, were identified by Ewan Mackie along with a further two in Dumfriesshire (1976, 233–5). These south-west forts were described as one of three geographically distinct groups in Scotland *(ibid.,* 222 & 444). The four vitrified forts within the Stewartry other than Trusty's Hill, appear to be very similar morphologically. Edgarton Mote and Castlegower both comprise small

fortified summits with lowerlying enclosures and terraces, with Edgarton also cut off from the ridge to the north and south by rock-cut ditches of similar proportions to that at Trusty's Hill (RCAHMS 1914, 35–6 & 60–1). The fort at Mochrum Fell similarly comprises a fortified summit of a prominent knoll with a lower-lying outwork. At all three of these sites it appears that it was only the summit rampart that was vitrified, as is apparent at Trusty's Hill, indicating that timber-laced stone ramparts only enclosed the prominent hill tops. While the Mote of Mark has no apparent outworks, it is not too dissimilar to these other forts in that its single timber-laced rampart forms an irregular oval enclosure around the summit of a small rocky knoll (Laing & Longley 2006, 2; Fig. 7.2). As this is the only other vitrified fort in Galloway to have been excavated, and which yielded evidence again for occupation in the sixth and seventh centuries AD (Laing & Longley 2006, 24), this suggests that the other vitrified forts in the area may be of a similar age and status to both Mote of Mark and Trusty's Hill. Mote of Mark was described by the excavators as the workshop and home base of a master craftsman of high status *(ibid.,* 174), and further excavation of the other vitrified forts may yield more clues to early medieval social differentiation in the Stewartry district of Galloway.

Just out with Galloway, the hillfort at Tynron Doon in upper Nithsdale, from which there is some evidence of vitrification and occupation around the sixth–eighth centuries AD, also comprises a fortified summit of a prominent peak with lower-lying outworks (Williams 1971, 107; Fig. 7.2). However, almost all the other vitrified forts in Dumfries & Galloway, Doon of May in Wigtownshire, and Mullach and Kemp's Castle in Nithsdale, are very dissimilar in form to the vitrified forts of the Stewartry and to each other (RCAHMS 1912, 76; 1920, 122–3 & 193) and there is therefore no reason to believe that these had the same functions or date to the same period. The only other known vitrified fort in the region is Castle O'er in Eskdale, East Dumfriesshire, which interestingly does resemble the courtyard forts of Suie Hill and Dungarry albeit as a much larger settlement and demonstrably comprising multiple households (RCAHMS 1997, 80). Castle O'er appears to have been constructed in the third or fourth century AD before being vitrified and destroyed at some point before the end of the fifth century (Roger Mercer, *pers. comm.)*. This again offers further comparable evidence in south-west Scotland to contemporary settlement trends in parts of north-east Scotland (Cook 2011, 216–18). A general comparison can also be drawn with the sporadic distribution of vitrified forts in Ayrshire and Renfrewshire.

Included in this list are Kildoon Hill, which has been observed to closely resemble Trusty's Hill (Childe & Graham 1943, 39; RCAHMS 1953), and the dissimilar fort at Craigmarloch that probably dates to the first millennium BC (Nisbet 1996, 56–7).

While there are few direct Iron Age antecedents for timber-laced stone ramparts in Dumfries & Galloway, there are numerous antecedents for exotic architecture as a form of ostentatious display. Most notably there is the scatter of brochs and duns across the west of the region which reflect the wider architectural trends of Atlantic Scotland but with a local twist (Cavers 2008, 15–16). The closest of these Atlantic style structures, Castle Haven, lies on the coast only a few miles to the south-east of Trusty's Hill and comprises a D-shaped galleried dun that might have ranged in date from the Iron Age into the early medieval period (Barbour 1907, 71; Cavers 2008, 18; Alcock *et al.* 1989, 209; Cessford 1994a, 73–4; Alcock 2003, 187; Laing & Longley 2006, 165). It is therefore possible that the timber-laced stone rampart atop Trusty's Hill both reflected the Iron Age trends in Galloway of adopting atypical architecture for the ostentatious display of power, wealth and cultural sophistication, but also emerging architectural trends of nuclear fort building shared with the north. In doing so, the early medieval household at Trusty's Hill was marking itself out both as a successor to those who inhabited the landscape in the past and as intimately connected with the highest status households of northern Britain at the time.

This is exemplified in the way socially constructed memories and traditions may have governed the choice of location for early medieval centres where material culture was crafted to project strong identities. Sites with signs of previous Iron Age occupation, such as Trusty's Hill, or Dunadd in Argyll, Clatchard Craig in Fife, Dinas Powys in south Wales, or Cadbury Castle and Cadbury Congresbury, both in Somerset, may have been deliberately re-occupied by emergent ruling elites in the fifth and sixth centuries AD, albeit with contemporary architecture (Bowles 2007, 67–8). In fact, given the less than prominent location of Trusty's Hill within the surrounding landscape, in marked contrast to other early medieval strongholds such as Dunadd, Edinburgh Castle Rock and Dumbarton Rock, it is difficult to imagine the reason for establishing such a high status settlement here other than one that drew on earlier traditions related to the site. It may be that the previous Iron Age occupation of Trusty's Hill had garnered such an illustrious and embellished reputation over the intervening centuries that the appropriation of this hilltop at some point in the sixth century enhanced the legitimacy of the new

household over the landscape 'of their ancestors'. Indeed, the potential relationship between Trusty's Hill and the monastic settlement at Ardwall Isle (discussed further below), mirrored by the pairing of other early medieval royal and monastic sites such as Bamburgh and Lindisfarne, has regional Iron Age antecedents in the pairing of the hillfort at Castle O'er and the nearby ritual site at Over Rig (RCAHMS 1997, 78–85). These latter two sites, moreover, lie within a settlement pattern that suggests Iron Age origins to the medieval estate structure of Dumfriesshire (Halliday 2002, 102–3).

The longevity of social memory in the later prehistoric and early medieval eras is increasingly recognised (Driscoll 2011, 264), in instances such as the re-occupation of Traprain Law in East Lothian in the Roman Iron Age, which may have drawn on the memories, myths and legends of the site that had accrued since its abandonment in the Late Bronze Age (Armit & McKenzie 2013, 512). The overt and underlying symbolism of reconnecting with a distant, even mythical, history, but in a socially relevant way, probably allowed the occupants of a hillfort to assert authority through physical associations with a collective past (Harding 2012, 290). In northern Britain, at sites like Trusty's Hill and Dunadd, the greatest natural and human resources seem to have gone into creating new and imposing enclosures on hilltop summits that mimicked earlier Iron Age fortifications. Perhaps this was to emphasise to an external audience the strength, connectedness and legitimacy of both past and current households.

Internally, however, we are left with many questions about the nature of the architecture at these sites, with scant evidence for the timber post-built structures within. Indeed, the internal architecture of these places may have been more ephemeral, perhaps owing to a peripatetic ruling class and their craftspeople only occasionally occupying the space (Clarke 2012, 87 & 103). Regardless, there was clearly an intention at these sites to externally project a sense of enduring power, strength and identity based in a shared sense of collective memory and identity. To cement the strong associations of people with place, sites such as Trusty's Hill and Dunadd were actively ritualised with meaningful symbols of authority such as the rock-cut basins and carvings in prominent locations. Indeed, people may have assembled at these places to conduct various public acts regardless if the household was actually in residence or not.

Arable agriculture

Control over local agricultural surplus lay at the heart of Trusty's Hill's economy. The surplus both sustained its household and allowed it to accumulate greater wealth and prestige through its redistribution. Susan Ramsay's analysis of the limited archaeobotanical assemblage yields insight into local cereal production, and its consumption at Trusty's Hill (see Chapter 5). Barley was the dominant grain, with oats found in trace amounts. This pattern of charred barley and oats, albeit often in much greater quantities, is attested on early medieval sites elsewhere in Scotland (Alcock 2003, 111). The predominance of barley, supplemented by oats, conforms closely to cereal assemblages from near contemporary settlements elsewhere such as Lockerbie (Hastie 2011, 51), Edinburgh Castle (Boardman & Ramsay 1997, 195), Dundonald Castle (Holden 2004, 115–17), Dunadd (Milles 2000, 221–6), Easter Kinnear (Dickson 1997, 107–12) and Hoddom (Holden 2006, 109–13). Ramsay argues that the lack of a comprehensive cereal assemblage from the site could be the result of low level domestic activity, the absence of food processing on the summit, that the site was only intermittently occupied or that the carbonised grains were residual from earlier phases of occupation. However, another possibility for the small assemblage could be the result of regular housekeeping of the summit structures and clearance into currently unidentified middens. While any of these are certainly possibilities, the charred grains were found within dark soil contexts dated to the early medieval occupation making it unlikely that they come from earlier contexts, and their carbonisation suggests cooking nearby within the sixth and early seventh centuries. The recovery in 1960 of the lower half of a granite rotary quern from Trench 4 also implies grain processing on site contemporary with these early medieval occupation deposits (Thomas 1961, 63).

It has been suggested that the large number of quern stones at Dunadd, and possibly Loch Glashan, resulted from the collection of these from a local populace forced to use water mills, based on comparisons with contemporary evidence from Ireland (Lane & Campbell 2000, 237). However, it is more likely in the case of Trusty's Hill that its household controlled the collection of grain renders from bonded farmers, and the consumption and redistribution of grain in much the same way as it did for other resources. Water milling in the

Fleet is certainly conceivable, but there is no evidence that sites such as Dunadd, Trusty's Hill or the Mote of Mark were directly engaged in farming activities. For example, none have produced plough pebbles similar to those encountered at Whithorn (Hill & Nicholson 1997, 464–6), which indicate the use of mouldboard ploughs in Galloway as early as the sixth century AD (Hill & Kucharski 1990, 81–2). Together with the presence of millstones (Chadburn *et al.* 1997, 460), it is clear that the monastic settlement at Whithorn was engaged in cultivation and processing of grain for its own needs and possibly redistribution as well. The comparative lack of evidence for farming is matched in the small and poorly preserved grain assemblage from the occupation deposits at Trusty's Hill which yielded no positive evidence for local crop regimes, such as associated chaff or weed seed contaminants, that might reveal harvesting or processing methods as demonstrated at Dunadd or Garvald in South Lanarkshire (Milles 2000, 221–6; Rankin 2002, 73–4). It is interesting to note, however, that wheat, often seen as an early medieval high status import (Dickson & Dickson 2000), was not present in the cereal assemblage as identified, albeit in miniscule quantities, at other near contemporary sites in Scotland such as Lockerbie and Edinburgh Castle (Hastie 2011, 50–1; Boardman & Ramsay 1997, 191–9). Its absence at Trusty's Hill, just as at Dunadd during the same period (Milles 2000, 221), suggests that there was no desire to import or grow wheat locally.

It is unlikely that the rocky and boggy Boreland Hills in which Trusty's Hill lies provided adequate farmland for growing barley and oats. Modern land capability studies for Scotland, while not directly representative of past climate or agricultural practice, nevertheless show that the land to the west of the Fleet is typically unsuitable for crops and, while some areas will support grasslands, the area is predominately valuable for rough grazing only (Birnie *et al.* 2010). Crops were more likely to be grown in the well-drained land of the Fleet Valley, such as the fields around Girthon which conform to the Macauley Institutes' class 3.1 of soils suited to mixed agriculture *(ibid.)*. The lack of identifiable agricultural implements in the artefact assemblage and of a larger cereals assemblage, combined with the limited evidence for food processing, point to the household at Trusty's Hill receiving and processing harvested grains rather than practising agricultural activities themselves. This is consistent with other higher status early medieval settlements in Scotland where it can be surmised that the occupants, engaged principally in high status craft activities, controlled but did not engage in local farming (Alcock 1988, 26–7). The excavations at Hoddom concluded that the high

status monastic settlement benefited from the control of an organised arable economy, with the site receiving surplus 'clean' grain for storage and processing (Mills 2006, 145). An agricultural estate controlled from Hoddom is implied by the large variety of grain and weed seeds that seem to come from a considerable hinterland *(ibid.)*. A similar arrangement is suggested for Trusty's Hill. It is not possible, at present, to suggest where Trusty's Hill's dependent farming communities existed in the Fleet Valley. However, there were probably a number of sites along the valley similar to the early medieval farmsteads at Garvald (Cook 2002, 78), with activities ranging from cultivation to wool production in the context of owing renders to the household at Trusty's Hill. The recently excavated settlement at Lockerbie, which may have originated as a pre-Anglian native British hall (Kirby 2011, 43–54), provides another regional example of a farming settlement in this period.

Among the non-cereal seed remains, there are several notable species present. First are the raspberry and bramble seeds in the waterlogged deposits from the rock-cut basin. While these could be the result of berry collection by Trusty's Hill's inhabitants, it is possible that they represent naturally occurring plants near the basin in the centuries following the site's abandonment, or modern contamination from Thomas' 'soupy mud' at the base of his Trench 2 excavations (see Chapter 5). However, both raspberry and bramble are known from Dundurn and late Iron Age contexts at Edinburgh Castle (Alcock *et al.* 1989, 222; Boardman & Ramsay 1997, 194). Furthermore, given the quantity and frequent occurrence of hazelnut shells throughout the occupation deposits, it can be observed that not only was hazelnut, as a rich source of protein and fibre, probably a dietary staple, but also that the gathering of wild plants was practised, which suggests that the raspberry and bramble remains also plausibly derive from the early medieval occupation of the site.

Animal husbandry

As with the plant remains, the animal bone assemblage from Trusty's Hill was limited by poor preservation and the small scale of the excavations (see Chapter 5). Nevertheless, Karen Deighton's analysis indicates that animal husbandry and consumption at Trusty's Hill conforms to a pattern witnessed at other contemporary high status sites in western Britain and Ireland and which implies the control of significant animal capital. The dominant taxa within the summit deposits at Trusty's Hill was cattle at almost 69% of the total identified taxa, with pig coming second at 20%, sheep or goat at 10%

and horse at around 1% (see Table 5.3). The impression given by the assemblage is a meat diet based primarily on cattle and pig, with some sheep or goat. While the horse may have been eaten at Trusty's Hill, it more likely represents the remains of an animal primarily used either for riding or as a pack animal.

The predominance of cattle in early medieval animal bone assemblages is well established (Alcock 2003, 112–14). Sites such as Dundurn and Dunollie produced very high percentages with over 60% of the total in both cases *(ibid.,* table 4). At Whithorn, cattle made up almost 80% of the meat consumed before the medieval period (McCormick & Murphy 1997, 605). This accords well with the evidence from Dunadd where 76% of the assemblage came from cattle, while sheep (12%) and pig (10%) made up most of the rest (Noddle 2000, table 6.5). The considerable animal bone assemblage from the Mote of Mark also showed cattle vastly predominating at nearly 75%, with pig at over 16% and sheep or goat at 9% of the total (Bourdillon 2006, table 20). These closely compare with Trusty's Hill in that cattle far outweighs the other species, consistently comprising around three quarters of the overall assemblages. However, the Trusty's Hill assemblage was fragmentary, poorly preserved and likely suffered from the incorporation of 'a large quantity' of unrecovered bones in the 1960 backfill where they would have been more prone to further fragmentation than in situ samples (Thomas 1961, 63). Unfortunately, the quality of the assemblage precluded identification of age ratios, slaughter patterns and cooking practices.

Nevertheless, Trusty's Hill broadly conforms to our understanding of high status animal consumption in Scotland where it is widely believed that cattle herds were an important symbol of wealth and prestige (Alcock 2003, 114). Much of the discussion of cattle herds in Scotland rests on assuming archaeological parallels with early medieval Irish legal texts. In Ireland, the status of an individual was intimately tied to the number of cattle he possessed or rented from a lord (Edwards 1996, 56–7). Cattle were used to bond men through rent and gift, with the meat, dairy and hides returning to a lord through render (Alcock 2003, 114). The productive longevity of a cow or bull, and the ability to use this as a basis for cementing long term client relationships, allowed cattle to become a kind of currency, and herds a form of banking. But it was the bonding relationship through the gift of a cow that was of prime importance rather than simply the accumulation of wealth (Doherty 1980, 73). The cattle were mainly kept for dairy with heifers being allowed to mature and the surplus younger animals killed for their meat (Edwards 1996, 57). The wealth

represented by cattle herds required careful management and protection, especially if cattle raiding was as important as the poetry of the era suggests, with one of the northern kings, Urien of Rheged, celebrated as a 'raucous cattle-raider' with 'herds of cattle surround[ing] him' (Clancy 1998, 84 & 87).

As the second largest element in the animal bone assemblage, the incidence of pig is another commonality shared with other high status sites in Scotland. Pigs provide a sustainable source of meat with sows producing up to several litters of five or more piglets a year (Alcock 2003, 113). Thus, while a single cow will produce a greater carcass weight, a sow will produce a ready supply of meat throughout a year. However, the smaller and softer pig bones are more prone to fracturing and disintegration than cattle which suggests that the assemblage percentages of Trusty's Hill and other contemporary settlements may substantially under-represent the actual proportions of meat consumed (Alcock 2003, 112). While meat was probably the primary pig product, the hides and fat were also likely utilised.

Sheep or goat (it is often impossible to distinguish the two) were also represented in the Trusty's Hill assemblage and while these were clearly a source of meat, the relatively low percentage of animal bones in the Trusty's Hill assemblage may reflect a hesitancy to consume sheep, with a preference for their wool and perhaps dairy produce. Wool production and textile manufacture at Trusty's Hill is demonstrated by the single spindle whorl. Wool may have been sheared on site, or brought in bales. Beyond this, the limited evidence from Trusty's Hill shows that either mutton or lamb was consumed by the household, but in more limited quantities than the other domesticates.

It is likely that the animals consumed and processed at Trusty's Hill were brought to site on the hoof. The splintering apparent on the bones, resulting from heavy handed butchery practice, does not suggest delicate food preparation but rather the swift separation of meat into either single portions or for inclusion in stews. However as Karen Deighton points out, post-deposition processes such as animal scavenging may have resulted in a preservation bias (see Chapter 5). The apparent treatment of scraps also implies a certain casualness to the food consumed on site. Deighton suggests that the bones from consumed meat were thrown into open middens where dogs or foxes could readily eat them. Indeed, the level of canid marks on the bones may indicate that throwing bones to dogs, or allowing them to root through middens, was a regular occurrence. If open middens did exist on the site they may have served as a practical resource. Deighton

draws our attention to the heavily burnt and calcined bones from Trusty's Hill and the analogy with Dunadd where bones were perhaps utilised as a supply of fuel for metalworking or keeping fires lit overnight (Wysocki 2000, 229). However, given the high heat involved in calcining bones (temperatures above 1000°C), and the incidence of bone from within rampart contexts in Trench 4, it seems likely that at least some of the bone was burnt during the destruction of the summit rampart.

The rare evidence for horse, possibly from a single skull, at Trusty's Hill is an interesting inclusion. The likelihood is that this animal was used for riding rather than food. Horses were highly valued in early medieval society, not simply for their practical uses whether in transport, hunting, warfare or farming, but also as gifts within the patronage system. Horses frequently occur as a symbol of military prowess in the poetry of the time (Clancy 1998, 82, 86 & 87). This accords well with the evidence from Ireland and elsewhere where horses appear to have been bred especially as mobile high status symbols that were richly adorned when ridden (Edwards 1996, 59). Indeed, the gilded horse mount from Trusty's Hill is best viewed as a fragment of horse gear indicating at least the presence of high status tackle on the site. As with the cattle, pigs, sheep or goats, horses pasturing around Trusty's Hill may have added to the visible wealth of the household.

Equally important to the presence of certain species in the Trusty's Hill faunal assemblage is the absence of other species. The 2012 excavations did not provide evidence of wild fauna, birds, fish or seafood. The lack of fish or seafood in particular is surprising given the site's proximity to the River Fleet and the Solway. The assiduous sieving on site and in the laboratory meant that smaller bones, or even fish scale, would have been recognized if present, so the absence of these should be considered as genuine. Indeed, a similar lack of fish was noted at the Mote of Mark, another coastal secular settlement (Bourdillon 2006, 140–1). This is not the case at Whithorn where a variety of fish remains were encountered in all phases, though only a few from the pre-eighth century period (Hamilton-Dyer 1997, 602). It is therefore likely that fish was excluded from the diet in high status secular households during this period, though it was consumed, albeit in modest amounts, in contemporary Christian monastic settlements. The lack of bird or wild game bones is another interesting absence. A couple of bones from a domestic fowl, a single bone from a white-tailed eagle and a bone from a roe deer were recovered from the Mote of Mark (Bourdillon 2006, 139–41), while no bird bones, and only a

rather modest assemblage of red deer and roe deer bones, were recovered from pre-eighth century Whithorn (Hamilton-Dyer 1997, 604; McCormick & Murphy 1997, 611). This indicates that wild game played only an incidental role in the diet of early medieval communities in south-west Scotland. In fact the apparent diet at Trusty's Hill adheres closely to prevalent British diets during the Iron Age, which were dominated by the consumption of cattle, sheep/goats and pigs and barley and which largely excluded non-domesticated resources (Jay & Richards 2007, 187).

Textile production

The single cultivated flax seed from the primary fill of the rock-cut basin is significant because it is likely to represent early medieval flax processing on the site. Flax as a source of linen, oil and food, is known from other early medieval sites such as Buiston Crannog and Edinburgh Castle (Holden & Boardman 2000, 152; Boardman & Ramsay 1997, 191). The flax at Trusty's Hill suggests demand for non-cereal botanical resources in the wider landscape, while cattle and sheep may have not only provided dairy products and meat, but also hide, wool and bone to be used in domestic textile production. Woollen textile manufacture is clearly demonstrated by the single spindle whorl recovered from the western side of the summit (Fig. 4.19). Producing textiles, whether in linen, wool or leather, is also the likeliest explanation for the purpose of the three-toothed socketed iron tool from Trench 5 and the stone polishers or burnishers in the artefact assemblage (see Chapter 4). These items suggest that the household at Trusty's Hill was engaged in the production of textiles and it is probable that the finished products, as with the metalwork discussed below, were finely crafted with an added status granted by virtue of their place of origin. The leather working may even have complemented the metalworking, with combined leather and metal objects being produced in the workshop here.

Woodland management

The evidence recovered in 2012 clearly indicates that a tightly controlled and sustainable supply of wood was needed for the construction and repair of structures, fuel for craft manufacture, cooking, heat, and as a supply of supplementary foods such as hazelnuts. Oak and hazel predominated the charcoal assemblage, with a significant ash contribution. The majority of oak, hazel and ash charcoal came from features and deposits closely associated with the

ramparts on both sides of the summit. Susan Ramsay concludes that this reflects the burning of structural timbers and wattle (see Chapter 5). As discussed above, much of this came from a significant timber framework within the rampart core, and very likely a superstructure above. The assemblage may also include timbers and wattle from dismantled structures in the interior of the site used as fuel to destroy the rampart. But given the scale of vitrification around the summit, additional fuel was undoubtedly required to maintain the intensity of the rampart's destruction over a lengthy period of time. The considerable fuel resource needed to vitrify stone on the scale of the Trusty's Hill rampart is unlikely to have been met by the wood found in the site's structures alone and so felling trees and transporting these from a nearby woodland is likely.

In addition to the oak, hazel and ash samples, smaller quantities of other species perhaps indicate fuel for domestic and industrial fires. These include alder, birch, cherry and willow. Despite these being found in dark soil deposits, Ramsay indicates the small percentages do not adequately represent domestic activities on site. It is probable, as Ramsay notes, that the domestic evidence at Trusty's Hill remains in unexcavated middens or pits elsewhere on site.

The species of wood utilised at Trusty's Hill was broadly similar to that at other early medieval sites. Similar assemblages, comprised principally of oak and hazel, and supplemented by other species, are known from Hoddom (Crone 2006, 148–50), Whithorn (Crone 1997, 596–8), Buiston Crannog (Brunning 2000, 84–9), Dunadd (Boyd 2000, 229), Dumbarton Rock (Alcock & Alcock 1990, 110) and Dundurn (Alcock *et al.* 1989, 196). While accepting that there are interpretive difficulties with all of these assemblages, particularly when suggesting woodland management (Crone 2006, 148), it is unlikely that all of these sites relied on ancient and semi-natural woodland as a source of sustainable timber over long periods of time. The evidence instead indicates a secure, managed and sustainable woodland somewhere near Trusty's Hill. There is little in either the archaeological or historical record to suggest the survival of managed woodland into the medieval period in south-west Scotland, though John Gilbert points to the place-name *Hardgrafe* (modern Hardgrove between Kinmount and Dalton, Dumfriesshire) as indicative of seventh century Anglian incomers to the region recognising existing coppiced woodland (2012, 110). The presence of oak throughout the timber-framed rampart encircling the summit of Trusty's Hill certainly suggests a ready and large supply of mature woodland in the sixth century AD. It is likely that the structures occupying the summit citadel were also built with

oak and ash, as well as probably hazel roundwood for wattling. Altogether, the scale of construction evident at Trusty's Hill indicates control of substantial mixed woodland, dominated by oak, and likely managed through careful coppicing or pollarding. It may be that this woodland was also utilised as a source for specialised woodworking. Susan Ramsay suggested the carbonised yew fragments from Trusty's Hill may have come from a bucket or bowl (see Chapter 5), and the lack of native pottery from the site suggests that utilitarian objects were probably crafted from wood and leather. As Gemma Cruickshanks and Fraser Hunter discuss in Chapter 4, the iron vessel handle may once have been attached to a wooden vessel. The use of wooden bowls and platters instead of pottery vessels was likely common across early medieval western Britain. Lathe-turned bowls of alder and willow were recovered from Hoddom (Crone 2006, 135–7), while alder and willow bowl fragments and wasters were found in the ditch at Iona (Barber 1981, 335). Lathe turned bowls were recovered from both Loch Glashan and Buiston Crannogs (Crone & Campbell 2005, 33–4; Crone 2000, 112). In fact, the anaerobic conditions of Buiston Crannog yielded a large assemblage of wooden objects, such as bowl roughouts, a barrel lid, a churn lid, a cattle hobble, an ard, a textile comb, weaving implements, mallets, a shoe last and a decorated leather scraper *(ibid.,* 111– 29), indicating the range of domestic and craft items of wood that do not survive in dryland archaeological sites such as Trusty's Hill.

A managed woodland near Trusty's Hill was essential to its early medieval household as a source of fuel, food, secure pasturage for animals and for construction and repair of structures. As already noted above, the control and conspicuous consumption of limited timber resources may have had as much to do with the exercise of power over local communities as with the practicalities of constructing large timber structures (Tipping *et al.* 2006, 41). The apparent depletion of available timber resources over the course of the first half of the first millennium AD, following a peak in woodland clearance for agriculture during the latter centuries of the first millennium BC (Tipping 1997, 20–1; Armit & Ralston 1997, 192), may have had the effect of restricting the uses of timber and increasing the control of this resource in the hands of an elite. The contrast between the conspicuous use of mature timber at Rhynie in Aberdeenshire or the high status post-built halls at the Mote of Mark and the pre-Anglian British phase at Lockerbie (Noble *et al.* 2013, 1142; Laing & Longley 2006, 171; Kirby 2011, 47–54) stands in stark contrast to the low status Pitcarmick-type houses in north-east Scotland predominantly

built of stone and turf (Carver *et al.* 2012, 184; Strachan & Sneddon 2012, 154)) and the modest stake and wattle houses at Whithorn and Dolphinton (Hill 1997, 70; Cook 2002, 77). Exclusive control and conspicuous consumption of mature timber appears to have been a hallmark of elite status in northern Britain during the first centuries of the early medieval period.

Mineral extraction

Exploitation of the local and regional environment was not restricted to organic resources. The single lead bar, recovered from a dark soil deposit on the eastern side of the summit, provides evidence for early medieval lead extraction in Galloway (see Chapter 4). The lead isotope analysis of this ingot demonstrates the likelihood of a Southern Uplands origin. The bar also contained trace amounts of copper and tin as revealed by XRF analysis (see Chapter 4). This could be taken to suggest that the source metal for the bar was from scrap lead-alloy objects , or that smelting took place in areas where other metals were being worked. However, given the incidence of lead, copper and zinc naturally occurring together in local seams (Wilson 1921, 44), it is more likely that the ingot was directly cast from local galena ore that contained other trace elements.

Numerous mineral veins interspersed in Llandovery-Tarannon greywackes containing lead, copper and zinc extend in a broadly north-westerly direction around the foot of Cairnsmore of Fleet (Wilson 1921, 44). There are also numerous lead workings in the hills between the Fleet and Cree rivers including those on Ardwall Hill (NX 568 567), Little Brennan (NX 5583 6191), Meikle Brennan (NX 551 614), Pool Ness (NX 5654 6236) and lead mines at Woodhead (NX 531 936). The nearest source of lead to Trusty's Hill is the site of a copper and possibly lead working above Jennoch Wood (NX 5758 5663; Andrew Nicholson *pers. comm.)*. Archaeological evidence has been recovered from the Leadhills in Dumfries & Galloway and in western Peebleshire for lead smelting from the tenth century, while there is plentiful historical evidence for lead mining and the smelting of lead in southern Scotland from the twelfth century onwards (Pickin 2010, 81–3). While there is no direct evidence for lead mining in the early medieval period, it is reasonable to surmise that the lead bar from Trusty's Hill originated from the working of a local lead source. Indeed, the close isotope signature of the Trusty's Hill lead bar with the lead beads recovered from the Iron Age promontory fort at Carghidown in the Machars of Galloway (Pashley *et al.* 2007, 283–4; Fig. 4.14) indicates the continuation of local pre-Roman Iron Age

exploitation of such lead sources. There is also evidence elsewhere in Scotland for early medieval lead smelting and working, in the form of lead objects, industrial waste and, in the cases of Dunadd and Whithorn, galena ore (Lane & Campbell 2000, 211; Nicholson 1997b, 396). Hoddom also produced some evidence that lead smelting was occurring alongside iron blacksmithing (Lowe 2006, 141–2). Lead objects occur on several other early medieval sites including the Mote of Mark (Laing & Longley 2006, 90), Ardwall Isle (Thomas 1967, 145), Tynron Doon (Williams 1971, 113), Whithorn (Nicholson 1997b, 389–7) and Dunadd (Lane & Campbell 2000, 159–60) though typically as finished utilitarian objects, such as ingots and spindle whorls from Whithorn and Dunadd, or scrap, such as sheet lead from Ardwall Isle.

Thus, lead as a raw source metal for objects in its own right may have been widespread. The primary use for lead at high status early medieval sites, however, was for the production of copper alloys. Tin, copper and lead ingots, as well as rods, were brought to Dunadd as pure sources for on-site bronze smelting used in fine metalworking (Lane & Campbell 2000, 208–9). The XRF analyses of Trusty's Hill's crucible fragments show that the majority of metals produced were leaded bronzes (see Chapter 4). Several of the crucible fragments show signs of high lead contents indicating leaded alloys from raw source metals with only trace amounts of zinc. This accords well with the evidence from Dunadd where zinc was rare (Lane & Campbell 2000, 209). A higher zinc content would indicate the production of brass rather than bronze. The use of zinc for brasses was introduced to Britain by the Romans with a gradual decline during the Roman period (Bayley *et al.* 2008, 49–50). By the Anglo-Saxon period zinc appears in metalwork in varying amounts and seemingly without many new brasses being produced *(ibid.)*. The implication of this is that scrapped Roman period brass objects were a primary source material for early Anglo-Saxon metalwork. Despite the proximity of Trusty's Hill to Irish Sea trade networks that could have brought scrap metals to the site, the high lead contents in the crucibles and the ingot suggests that the craftsmen at Trusty's Hill were not routinely or predominantly re-casting either Roman or Anglo-Saxon metal. This may have been a practical response to available metal sources, or a cultural choice.

The lead ingot from Trusty's Hill indicates that organised lead mining somewhere in the Southern Uplands was linked, either by direct control or through trade or patronage, to the household here. The control of a commodity used primarily in high status

metalworking was important for sustaining a workshop that was vital to wider economic and social exchanges. While the smelting of the lead may have occurred off-site, the household at Trusty's Hill could clearly acquire lead for use in fine metalworking. The lead, once on site, was alloyed with copper, again perhaps from local sources, to produce leaded bronze. The production of a lead ingot implies either an agreed standard of weight or size, or a 'to order' quantity of lead to form a stock of material. A similar process is likely for other raw metals brought to the site, and it is worth considering the single haematite cube from Trench 5 in light of this.

The workshop

As Gemma Cruickshanks and Fraser Hunter have discussed in Chapter 4, ample evidence for smelting and blacksmithing, the two basic stages of the early ironworking process, was recovered from Trusty's Hill. Smelting slag was recovered from the dark soil deposits on the eastern side of the summit, its amorphous shape suggesting it was raked out of the furnace whilst still hot and soft. A smithing hearth base, formed from accumulations of iron smithing slag, was also recovered from dark soil deposits within this part of the site. Additionally, small quantities of hammerscale, another diagnostic feature of blacksmithing, were recovered from across the summit with no obvious concentration indicating the focus of activity. Along with the hammerscale, a stone anvil and an iron file were recovered from the rampart collapse on the western side of the summit. As Beverley Ballin Smith noted in chapter 4, the anvil was fractured and may have been discarded and re-used in the fabric of the rampart prior to its collapse. The main concentrations of blacksmithing debris, iron slag and an iron rod with a twisted end, were recovered from the eastern side of the summit indicating that the sixth century smithy was based within this lower-lying shelf of the summit enclosure. The evidence for smelting in particular which is much rarer amongst early medieval settlements than blacksmithing, demonstrates that the workshop at Trusty's Hill was a centre of production rather than simply a workshop that mended items. Furthermore, the distribution of metalworking debris both in dark soil deposits which abutted the timber-laced rampart, and objects such as the anvil contained within the matrix of its collapse, suggests that a workshop existed at Trusty's Hill before and after the timberlaced stone fortification of the summit.

Along with this direct evidence for ironworking, several fire flints recovered from across the summit of likely early medieval date were noted by Torben Ballin in Chapter 4 and are another indication of

industrial and domestic fire-making.

Other artefacts found on the summit of Trusty's Hill strongly imply the processes used by the early medieval craftsmen on the site. The samian sherd recovered from the western side of the summit had been rubbed smooth on one side leading to the suggestion that it had been re-used as a source of jeweller's rouge, a fine powder used in polishing away imperfections in finished metal objects (see Campbell in Chapter 4). Fragments of carbonized seaweed, recovered from the primary fill of the rockcut basin and the backfill on the eastern side of the summit, may also derive from the early medieval occupation of the site. Seaweed was also recovered from Dunadd (Milles 2000, 223). As Susan Ramsay pointed out in Chapter 5, seaweed was traditionally used as a fertilizer, though this is unlikely to be its function in this case given the absence of any other evidence for agricultural activities at Trusty's Hill. Given its presence at two early medieval nucleated forts where industrial craft activities were undertaken, it seems more likely that seaweed was used in metal or glass working. Dried seaweed may, for instance, have been a low-temperature fuel for certain metalworking activities. It is also worth noting that the soda-lime derived from its burning is typically associated with historic glass manufacture, though experiments to prove its use in early medieval European glass have been fruitless (Salviulo *et al.* 2004, 296–7).

The most important assemblage of materials recovered from Trusty's Hill relates to the production of high quality non-ferrous metal objects and jewellery, as Campbell, Cruickshanks and Hunter have observed in Chapter 4. Despite the small scale of the 2012 excavations, a comprehensive range of evidence for high status metalworking was recovered, including mould and crucible fragments with evidence of leaded bronze, gold and silver working, along with heating trays, a possible 'parting' bowl, a crucible stand, the lead ingot discussed above, a fragment of vitrified material containing copper, a fragment of tuyère, furnace lining, fuel ash slag, and two fragments of possible Bohemian garnet. The XRF analyses of the metalworking ceramics provided evidence that the smiths at Trusty's Hill were smelting their own copper alloys and finely crafting objects in leaded bronze, some with gilding and silvering and perhaps containing garnet or glass insets. It is uncertain whether the Anglian style copper alloy mount was produced at Trusty's Hill, but it illustrates the types and quality of material that the craftsmen at Trusty's Hill were capable of producing. While not a large assemblage in comparison with other contemporary sites, it nevertheless places Trusty's Hill within the highest echelon of fine metalworking in early medieval Scotland.

The metalworking ceramics are the best evidence for the advanced metallurgy employed at Trusty's Hill. In all, 14 crucible fragments from seven vessels, one fragment of a parting bowl, and a fragment of a crucible stand were recovered mainly from dark soil deposits on the eastern side of the summit, but also within the rampart core and foundation deposit on the western side. While the volume of material from Trusty's Hill is dwarfed by the larger contemporary assemblages from comparative sites such as the Mote of Mark, which yielded 132 crucible fragments from at least 14 vessels (Laing & Longley 2006, 26), and Dunadd, which yielded 263 crucible fragments from at least 60 vessels (Lane & Campbell 2000, table 5.3), the quality of the crucible fragments is comparable. The scale of excavation at Trusty's Hill was comparatively smaller and there is undoubtedly a much larger assemblage awaiting discovery. All of Trusty's Hill's crucible fragments were vitrified, typically in a greenish glaze both internally and externally. To achieve this, the vessels were used to melt small amounts of metal within a furnace reaching temperatures about 1000°C. While not in ready evidence on the Trusty's Hill examples, relining the vessel exteriors with thin layers of clay for re-use is a frequent occurrence on crucibles from the period (Lane & Campbell 2000, 205). XRF analyses showed that the majority of the Trusty's Hill vessels were used to alloy leaded bronzes using combinations of lead, tin and copper (see Chapter 4).

Two important exceptions exist in the assemblage. One thick walled sherd, from the backfill deposit on the east side, contained a deep red enamel internally with little evidence of external vitrification. This vessel may have been employed in either crafting red glass for the enamelling of jewellery or to alloy a bronze where copper was the chief element thereby producing a redder vitrification. The second example, a base of a small triangular crucible again from the eastern side of the summit, shows external vitrification only with black deposits in the interior. The XRF analysis of this sherd showed it to have contained not only copper, lead and zinc, but also silver and it may be that this vessel was latterly employed in melting metals such as silver at a lower temperature. Importantly, the single heating tray fragment, from the same dark soil deposit on the eastern side, also showed signs of both gold and silver working. The tray was vitrified on the outside only, and demonstrated a line of vitrification indicating a lid. The heating tray may have been used to 'part' precious metals, a process that could have led to the creation of objects in their own right, such as the gold wire from the Mote of Mark (Whitfield 2006, 40), or for the gilding and silvering of copper alloy jewellery as

evident on the copper alloy mount from Trusty's Hill discussed below.

As Ewan Campbell notes in Chapter 4, the crucibles were all of a medium-sized, thin walled, triangular type (Fig. 4.3). These were common throughout the first millennium AD (Alcock 2003, 330). Only one of the Trusty's Hill metalworking ceramics, the heating tray, showed evidence of having been lidded, and none were apparently handled. In this they are similar to the Mote of Mark assemblage (Laing & Longley 2006, 26–32), but different from Dunadd in Argyll (Lane & Campbell 2000, 204–7) or Brough of Birsay in Orkney (Curle 1982, 40–1) where handled and lidded types predominate. Interestingly, Whithorn also produced a number of near contemporary crucible fragments, including similar examples to both the Mote of Mark and Trusty's Hill, but this assemblage also contained crucible lid fragments with broadly rectangular lugs similar to those from Dunadd and Loch Glashan (Hill & Nicholson 1997, 400, fig. 10.83; Campbell 2005, 63).

Small to medium sized, lidded and unlidded, crucibles are variations on a common theme that spans Western Britain and Ireland from the Iron Age through to the early medieval period. Similar vessels are recorded from Dinas Powys in Wales (Alcock 1987, 122–5), Ronaldsway on the Isle of Man (Laing & Laing 1988, 57), Lagore crannog in Ireland (Hencken 1950, 235) and Garryduff also in Ireland (O'Kelly 1962, 95–6). The examples from Dinas Powys and Lagore appear with lids bearing rounded lugs, a clear difference in type from the Scottish examples (Campbell 2005, 63). But despite the differences in forms between crucibles and lids, it is clear that craftsmen across Ireland and northern and western Britain were working in a common tradition of fine metalwork. The processes employed in high status metalworking at Trusty's Hill were therefore not uncommon, though in using unlidded crucibles the smiths at both Trusty's Hill and the Mote of Mark were perhaps slightly unorthodox. While furnace temperatures of 1000°C or more are needed for vitrification in the crucible fabrics, Lane and Campbell have suggested that temperatures well in excess of this may have been required to prevent the rapid cooling of the small quantities of metal in the vessels once removed from the furnace (2000, 205). Where lidded crucibles are used, the lids help keep the metals from cooling and also prevent oxidation (Alcock 2003, 330). The use of unlidded crucibles may seem at odds with what, on the face of it, was a more efficient technology. However, in the use of unlidded crucibles a layer of charcoal is added on top of the metals before melting to achieve the same effect as a lid (Lane & Campbell 2000, 205). This often results in charcoal inclusions

in the slag at the bottom of these crucibles, and it is worth pointing to the base of the small triangular crucible from the eastern side of Trusty's Hill where there are blackened accretions. Regardless, the melting process would have been relatively rapid once the required furnace temperature had been met through the use of bellows. We can imagine the quick addition of a crucible stand, a fragment of which came from the same dark soil deposit on the eastern side, followed by the crucible itself. After the metals had melted, tongs would have been used to remove the crucibles from the furnace, and it is notable that the impression of serrated tongs were identified on one crucible fragment from the Mote of Mark (Laing & Longley 2006, 32). Once removed, the rapid cooling of metal in such small quantities would have necessitated the immediate and steady pouring into a mould close by. It may be that the craftsmen at Trusty's Hill and the Mote of Mark chose not to use lidded crucibles, where added time was needed to remove the lids, for this very reason. Ultimately, it may have been quicker, and perhaps taken more skill, to use the unlidded crucibles where the metals had less of a chance to cool if poured more rapidly.

While Ewan Campbell suggests that there are no cultural or ethnic divisions represented in the crucibles from the various sites in Scotland (see Chapter 4), the variance in crucible lid types between south-western Britain/Ireland and Scotland suggest regional differences that perhaps point to 'schools' of smithing where master smiths passed their knowledge on to local apprentices. Indeed, the dominance of the unlidded, triangular, crucible forms at the Mote of Mark (Laing & Longley 2006, 26) and now Trusty's Hill, does suggest regional choices in metalworking or, as an intriguing possibility, the presence of a relatively few master craft workers moving between sites perhaps as part of the household of a peripatetic lord or royal personage as suggested for Argyll (Heald 2011, 229). It is not impossible that the same craftsmen that created the material at Trusty's Hill also worked at the Mote of Mark. Indeed, the near exclusive use of unlidded crucibles at these sites, but not at Whithorn, suggests closer intimate connections between these two secular workshops than with the workshop within the chief religious settlement in Galloway.

Alongside the crucibles, the Trusty's Hill assemblage provided more evidence for non-ferrous smithing, in the form of metalworking debris detected chiefly on the eastern side of the summit. This small assemblage included 16 undiagnostic vitrified ceramics, perhaps crucible fragments or furnace lining, two of which showed evidence of copper (see Chapter 4). The assemblage also included a fragment of

tuyère (a protective clay coating on the end of a bellows), several probable fragments of furnace lining and an abundance of fuel ash slag, all from a dark soil deposit. The non-ferrous debris points to an active smith skilled in the technology and processes of the time, based in the same lower shelf area of the summit as the ironworking. As Gemma Cruickshanks notes in Chapter 4, blacksmithing and non-ferrous metalworking are typically concentrated in metalworking zones within early medieval sites, such as at Dunadd (Lane & Campbell 2000, 251), Mote of Mark (Laing & Longley 2006, 174), Dunollie (Alcock & Alcock 1987, 141), Dumbarton Rock (Alcock & Alcock 1990, 108–9), the Brough of Birsay (Curle 1982, 18–19) and beyond Scotland at prominent secular sites such as Dinas Powys in Wales (Alcock 1987, 99). This suggests that these workshops may have employed several smiths, or one versed in a range of skills, producing a wide range of materials and goods from utilitarian tools to the finest brooches. The evidence for both smelting and smithing iron at Trusty's Hill suggests that objects were primarily being fashioned from raw materials rather than being reworked from imported objects.

Although only three mould fragments were discovered at Trusty's Hill, these too point to very highly skilled smiths working within a northern British tradition of high status jewellery production. Two of the moulds relate to the production of pins, while the other was likely used to craft a brooch. Unfortunately, these three fragments do not indicate the types of pins or brooch that were produced. Further excavation of Trusty's Hill will likely yield a mould assemblage comparable to sites such as Dunadd and the Mote of Mark. There are several inferences to make from the moulds and comparanda, as Ewan Campbell notes in Chapter 4. Two of the fragments indicate moulds with a radiating pattern of thin linear shapes for the casting of multiple objects at a time (Fig. 4.3). This is similar to moulds used to create pins from the Mote of Mark and in the SG17 group from Whithorn (Laing & Longley 2006, 60, fig. 25; Hill & Nicholson 1997, 401, fig. 10.84). The third example from Trusty's Hill may come from a brooch mould. As Campbell states in chapter 4, the crossshaped key or registration mark on this fragment from Trusty's Hill is not paralleled at the Mote of Mark (Laing & Longley 2006, 35, table 3) or Dunadd, but is on moulds from Rhynie and Clatchard Craig . All three of the Trusty's Hill mould fragments show the common usage of two-sided, bi-valve, moulds created from pure clays. These included the shape of the object being cast, an in-gate channel for pouring the molten metals and perhaps channels between other object shapes if

multiple products were being produced in the same moulds. Key, or registration, marks such as the cross-shape on the Trusty's Hill brooch mould were used to exactly match the two sides of a bi-valve mould together. However, as Campbell has discussed, this cannot be taken as an indication of culturally diagnostic similarities in mould form (see Chapter 4). At the Brough of Birsay, it was inferred that the key marks were the choices of individual smiths and this inference was carried forward for the moulds from Dunadd and the Mote of Mark (Curle 1982, 39; Lane & Campbell 2000, 202; Laing & Longley 2006, 32). If this were also the case in south-west Scotland, it is worth noting that the lack of a cross-shaped key pattern in any of the 482 mould fragments from the Mote of Mark perhaps indicates that the sites did not share their individual craftsmen after all. However, it may also be that smiths chose key marks relative to the specific objects being produced rather than based purely on any 'school of thought' or individual 'signature' approach.

We cannot know for certain the types of metal objects that were cast at Trusty's Hill, but we can infer from the varying traces of gold, silver and leaded bronze in the moulds, crucibles and heating tray that the smiths were crafting high status jewellery similar to those from the Mote of Mark and other contemporary sites. The Mote of Mark moulds showed the production of a wide range of penannular brooches, including the widely used insular Type G, pins, buckles, strap fittings, studs and decorative mounts (Laing & Longley 2006, 142–51). The most common mould type at sites with non-ferrous metalworking evidence are pin moulds, along with the actual pins themselves. Judging by the balance of evidence, long pins were by far a more commonplace, every day, object than the more elaborate brooches (Alcock 2003, 331). Without the impressions of pinheads, the Trusty's Hill pin moulds are undiagnostic, though accepting that the pins were all made of copper alloy we should expect these to have been of a relatively high quality and status. The pin moulds from the Mote of Mark, again, provide us with possible parallels to the pins manufactured at Trusty's Hill. These included a thistle-headed pin, remarkably similar in form if not material to the rare iron thistle-headed pin found at Trusty's Hill, as well as the more typical disc-headed, knob-headed, nail-headed pins and an unusual zoomorphic discheaded pin with confronted dragonesque creatures, (Laing & Longley 2006, 60–1, 146, fig. 24 & pl. 11). The zoomorphic pin provides a valuable insight into the varied styles and influences shaping metalworking in the region. More pertinently, the confronted dragonesque creatures on this pin mould, and the apparently similar

creature on the iron axe-hammer pin from Rhynie (Noble *et al.* 2013, 1148; Fig. 6.7), both dating to the sixth century AD, indicate possible contemporary source material in the form of portable art to the S-dragon carved on to the rock outcrop at the entranceway to the summit of Trusty's Hill (Fig. 6.1).

The fine metalwork

While the bulk of the small assemblage of metalwork related to more prosaic functions such as textile manufacturing, as indicated by the triple-toothed socketed iron tool, or metalworking, as represented by the iron file, iron rod and lead ingot, or domestic occupation embodied by the fragment of an iron vessel handle and the dish-headed iron mount, two of the artefacts stand out as valuable ornaments that reflect the wealth and status of the household of Trusty's Hill.

Alice Blackwell's discussion of the circular copper alloy mount from Trusty's Hill, the only copper alloy artefact found in 2012, adds to the sense of an active and well-connected workshop (see Chapter 4). The chip-carved Germanic Style II birds' head ornament on the object clearly shows it to be of Anglo-Saxon origin, or having been influenced by Anglo-Saxon styles from the late sixth or early seventh centuries. The three lugs on the back have preserved organic material, likely leather, underneath them. Blackwell has drawn attention to the use of similar objects as mounts on horse harnesses such as the example from the Sutton Hoo Mound 17 (Evans 2005, 221–41, fig. 109–12). While there are no exact parallels in the Mote of Mark assemblage, roundel mould fragments from this site nevertheless show that Germanic Style II chip-carved ornamental mounts were being produced in Galloway in contemporary British contexts to the mount from Trusty's Hill (Laing & Longley 2006, 54 & 148–51). The XRF analysis of the Trusty's Hill mount showed that the front had been gilded and silvered giving the impression of a very high status object (see Cruickshanks & Hunter in Chapter 4). Given the evidence for gilding and silvering within the metalworking assemblage, and that local British craftsmen were producing similar ornaments at the Mote of Mark, it is plausible that the smiths at Trusty's Hill could have produced this fine mount. The presence of organic material within the objects lug fittings indicates it had originally been prised from a composite piece, perhaps horse gear, though whether this happened somewhere off-site, in the workshop or during the destruction of the site is open to question. Unfortunately it is not entirely clear from either its context in Thomas's backfill of Trench 4 on the eastern side

of the summit, or from its form, by which mechanism the object came to be deposited at Trusty's Hill. The XRF analysis of the mount shows it is composed of a leaded brass, with higher concentrations of zinc than found in either the crucibles or moulds from Trusty's Hill. This suggests it was brought to site as scrap with the intent of it being melted down and worked into another object. That the silvering and gilding of this object had been removed may indicate that this process had already begun. As noted above, leaded brass is more common in Anglo-Saxon England where Roman objects were used as a source material for metalworking. Given its composition it is unlikely that the Trusty's Hill mount was produced at the site. It may have come to the site as part of a complete horse bridle or as an object already removed. There are various explanations for either instance; it may have been gifted to the household, looted from a battlefield or acquired by the workshop's smiths simply as scrap.

The only other finely crafted object found in 2012 is the highly unusual thistle-headed iron pin with copper alloy banding. As discussed by Cruickshanks and Hunter in Chapter 4, the tremendous skill required to hammer the pin into shape, and then finely ornament it with inlaid copper alloy, amply demonstrates the high status of the artefact. But the rarity of similar examples, with just one known parallel from Howe in Orkney (Ballin Smith 1994, 217–8, fig. 130) also suggests it was special at the time of manufacture. The shape of the pin, with a thistle head and banding, would be typically more suited towards casting in bronze as suggested by a strikingly similar shaped mould from the Mote of Mark (Laing & Longley 2006, 61, fig. 24). In the case of the Trusty's Hill pin, it is the quality of skill employed in crafting this object that demonstrates its status, rather than the metals employed.

Unlike the copper alloy mount, the iron pin from Trusty's Hill is more likely to have been a local product, especially given the ample evidence for blacksmithing at Trusty's Hill. Indeed almost every secular high status settlement so far excavated in south-west Scotland has yielded some form of thistleheaded pin, whether it be a mould for a copper alloy pin at the Mote of Mark (Laing & Longley 2006, 61, fig. 24), or bone pins such as those recovered from Tynron Doon and Buiston Crannog (Williams 1971, 113–14; MacSween 2000, 147). These latter examples may have been employed as patterns for bronze casting to be pressed into a clay mould as proposed for the bone pins from Brough of Birsay in Orkney (Curle 1982, 20). The Trusty's Hill pin, on the other hand, was likely used as a dress fastener itself. Its wide shank suggests that it held together a loosely woven item such as

a cloak. The decorative head, and the copper alloy inlay, indicate it was also an object of display and status, and perhaps rank, for the wearer. Such pins ultimately derived from Romano-British traditions (Laing & Longley 2006, 145) and the common manufacture of such items suggests that some late Roman fashions persisted in Northern Britain, perhaps as part of an enduring sense of connection to the Roman world that is evident in the fashions, historical texts and inscriptions of the native Britons of southern Scotland in the post-Roman era (Forsyth 2005, 117; 2009, 33–24; Fraser 2013, 18–23).

The fine metalwork recovered from the 2012 excavations along with the evidence for high status metalworking, and leather and textile manufacture, combine to indicate the wealthy patronage that the household here could employ. As a characteristic of royal sites across Northern Britain and Ireland (Campbell 1996, 84), the use of precious metals in particular points to the household at Trusty's Hill being of the highest echelon of the social hierarchy of early medieval Scotland during the late sixth to early seventh centuries.

The continental imports

Alongside the evidence for high status craft working at Trusty's Hill, the 2012 excavations identified two sherds of imported pottery – both Gaulish – one a sherd of Roman samian ware and the other a later Merovingian sherd of E ware. Each sherd provides an echo of the status, identity and connectedness of the early medieval household at Trusty's Hill.

The Dragendorff 37 samian sherd, recovered from the dark soil deposit on the western side of the summit, dates to the second century AD (see Chapter 4). However, as this dark soil deposit yielded a calibrated radiocarbon date of AD 533–643, remarkably close to the calibrated radiocarbon dates from the rampart core which these deposits abutted and the corresponding dark soil deposit on the eastern side of the summit (see Table 3.2 and Fig 3.5), the deposition of this sherd clearly did not take place until at least the sixth century AD. As Campbell has noted, its presence at Trusty's Hill in an early medieval context is not uncommon (see Chapter 4). Roman objects have been found at Mote of Mark, Buiston Crannog, Dunadd, Dumbarton Rock, Edinburgh Castle, Dinas Powys, Whithorn, Dundurn, Hoddom and Lockerbie among others.

The single samian sherd from the Mote of Mark is the closest example to Trusty's Hill. It is similarly rubbed down on one side to form a smoothed and rounded convex profile (Laing & Longley 2006, 125). Ewan Campbell described the Trusty's Hill sherd as being used

as a source for jeweller's rouge (see Chapter 4) and the same identification likely holds true for the Mote of Mark samian sherd. At Dumbarton Rock, the Roman pottery was considered 'reliquary' within the context of the early medieval assemblage, which included metalworking evidence (Alcock & Alcock 1990, 108). The Romano-British objects found at Dinas Powys were clearly associated with early medieval activity leading to Alcock's conclusion that these were brought to the site as 'curios from deserted Roman sites' (1987, 23). At Dundurn, sandstone slabs and a cut block of tufa that bore evidence of red tile aggregate bound in mortar were thought to derive from a nearby Roman Fort (Alcock *et al.* 1989, 203). Similarly, a number of inscribed stone memorial fragments and building blocks were found incorporated into buildings at the early medieval monastic settlement at Hoddom and are thought to have been brought from the nearby Roman fort of Birrens (Keppie 2006, 123). Many Roman sites in Scotland, from temporary camps to legionary fortresses, undoubtedly remained as constant reminders in the landscape of the Roman past. The same can be said of the Roman road network, which continued as major arterial routes throughout the medieval period. Examples of both exist within easy reach of Trusty's Hill where a Roman fortlet at Barwhill guarded the Glenlochar–Loch Ryan road as it crossed the River Fleet (St Joseph 1983; Carey 2012, 57; Jones 2014). The lack of any other Roman objects in the 2012 assemblage, or indeed Roman Iron Age native objects, might suggest that the samian sherd from Trusty's Hill came from this site just over 1 km to the north.

The analyses of the Roman finds from Whithorn however point to complicated depositional trajectories at play over time. The assemblage of Roman objects at Whithorn includes samian and coarse ware sherds, vessel and window glass fragments, glass bangle fragments, glass tesserae and a coin of Constantius II or Constans (Dickinson *et al.* 1997, 292–7). Among the glass fragments are examples that have been obviously re-used in late sixth–seventh century AD craft working, with one showing evidence as a smoothing tool (Price 1997, 294). The samian from Whithorn included two sherds recovered from graves, thought to be used as talismans, though it was noted that none of these or the other six sherds showed any undue signs of wear (Dickinson *et al.* 1997, 293). The samian sherds came from seven different vessels, including the same Dragendorrf 37 type bowls as the Trusty's Hill sherd, and along with the remainder of the Roman material is considered to most likely derive from a Roman period settlement at the site *(ibid.* 1997, 293 & 296–7). In contrast, at Hoddom, in spite of the evident looting of building material from a

nearby Roman fort, no samian pottery sherds were encountered during excavations despite the religious nature of the monastic settlement there where connections to Roman material culture might be given more symbolic weight (Lowe 2006). The fragments of 14 samian ware vessels, again including Dragendorrf 37 type bowls, from Edinburgh Castle Rock were recovered from a midden that persisted continuously throughout the Iron Age and into the medieval period (Driscoll & Yeoman 1997, 45). The Roman pottery from this midden included sherds from about 37 coarse ware vessels as well (Dore 1997, 134) and many of the pottery sherds recovered had sharp breaks, in contrast to the sherds from Trusty's Hill and Mote of Mark, which had both been rubbed smooth by re-use. Notwithstanding this, several of the samian sherds came relatively late in the sequence of midden deposits and two of the sherds had been rubbed smooth on one side (Driscoll & Yeoman 1997, 43; Hartley 1997, 133–4). This suggests either that selective vessels had been curated for a significant length of time beyond their initial distribution, or that the middens were actively explored for sherds that could be reused in similar ways to the Trusty's Hill and Mote of Mark examples. At Dunadd, the Roman pottery was discovered alongside a number of other Roman and late Iron Age objects during the early twentieth century excavations (Lane & Campbell 2000, 90). While some of these could relate to the early medieval occupation of the site, the assemblage itself hinted at deposition no later than the second or third centuries AD, a period when Dunadd was certainly occupied (*ibid.*, 88–90). Likewise, while samian sherds were recovered from Buiston Crannog where the floruit of occupation was the late sixth and early seventh centuries, these are more likely to derive from occupation in the first–second centuries AD when the primary mound of the crannog was built (Crone 2000, 64). In fact as Campbell notes in Chapter 4, the form of samian ware recovered from Trusty's Hill, Dragendorrf 37, is the most common type of samian found on native Iron Age sites. The occupation of most of the local sites from which this type of samian ware has been recovered, such as Torrs Cave, Castle Loch Island and Dowalton Loch Crannog 3, more plausibly occurred during the first–second centuries AD than the early medieval period, given the associated finds assemblages (Wilson 2001, 100–2). Other local sites that have yielded samian or coarse Roman pottery include the fortified settlements of McCulloch's Castle and Teroy Broch (Scott-Elliott 1964, 123; Fraser Hunter *pers. comm.),* both of which from their architecture alone more comfortably date again to the first and second centuries AD than later centuries (Toolis 2007, 303; Harding 2004, 187).

The evidence above shows the difficulties in reconciling the presence of Roman material culture, often centuries old by the time of final deposition, in post-Roman contexts. Some sites, such as Whithorn and Edinburgh Castle Rock include material that is residual and perhaps other material that was curated and eventually reused in the early medieval period. Roman material from other sites, such as Dundurn and Hoddom, suggest the exploitation of ruinous Roman sites in the landscape for building stone and useful objects. It would be dangerous to assume that all Roman objects on early medieval sites were only brought there during the post-Roman period from the sites of former Roman military garrisons. Equally, it is difficult to interpret items as being residual or curated without corresponding contextual evidence or indications of reuse or repair. But on the balance of evidence, the Roman material on the hillforts of Trusty's Hill and the Mote of Mark indicates active efforts to import Roman pottery sherds from elsewhere and re-use these in craft working on site.

The pragmatism of reusing Roman pottery is a widely known phenomenon across the former Roman Empire. The occurrence of amphora and fine ware sherds being reused for cutting, grinding or polishing implements is well attested in European contexts (Peña 2007, 152 & 204–5). The processes of discard, reclamation and reuse of these objects often depended on the ready availability of the material and the requirements for utility implements and vessels. Indeed, Ewan Campbell's assertion that the Trusty's Hill samian sherd was reused for jeweller's rouge may reflect a long European tradition of such practices. The Trusty's Hill sherd may have been valued for the intrinsic qualities of the fine fabric and colour (thus its use as a source material for rouge), but also for its hardness perhaps allowing it to be employed in the final polishing of jewellery on site. The same can be said for the Mote of Mark samian sherd. Other examples, such as the Whithorn Roman glass, may similarly have been sought and collected specifically for the value of the material both as a source for cutting and rubbing implements but also as a raw material in craft manufacture. The reuse specifically of samian in northern Britain is considered by some to have been common only from the fourth century AD (Cool 2000, 53), although others have observed that samian motifs inspired native metalworkers in the centuries prior to this (MacGregor 1976, 186).

While the reuse of Roman objects in early medieval northern Britain can be seen in the wider context of practical processes, it becomes a more interesting proposition in areas where Roman occupation ceased centuries beforehand. To a degree, we should expect later depositions

of first–third century AD objects rather than Late Roman material in northern British contexts to reflect the nature and duration of direct Roman occupation. Thus, early Roman materials are largely restricted to building materials residing in ruined fortifications and portable objects inherited from native acquisition during the first– third centuries AD as reflected in the early medieval assemblages discussed above. The preference for samian ware in native Iron Age sites in Scotland, rather than other types of Roman pottery suggests it was an acquisition attractive to native tastes, which is borne out by the penchant for trumpet, headstud and dragonesque styles of Roman brooches amongst native communities too (Harding 2004, 191). The earlier samian ware, particularly Dragendorff 37 type bowls, may have functioned as communal drinking cups during feasting amongst the Iron Age elites of Scotland, Wales and Germany (Ingemark 2014, 223; Arnold & Davies 2000, 112). The selective distribution of fine tableware and other prestigious Roman goods to some pre-eminent native households but not others during the Roman occupation of southern Scotland, may also have owed more to Roman patronage of favoured households amongst the native tribes, than the purely commercial transactions of a free market (Macinnes 1984, 243–4; Dunwell 1999, 352–3; Banks 2000, 277–8; Ingemark 2014, 237). The importation of goods in this period is restricted to exotic and high status objects such as small quantities of fine wares, silverware and coinage, much of which, particularly the Late Roman silverware, was clearly being recycled to produce fine jewellery (Hunter 2010, 96; 2013, 7).

While the sherd was very clearly used in the context of craft working at Trusty's Hill, and within a tradition of using Roman pottery in this way across Britain and Europe, the curation of this sherd begs the question about whether other social processes lay behind its reuse as a source of jeweller's rouge in multiple early medieval workshops. Clearly samian ware had pragmatic uses in the later Iron Age as evident in samian sherd rubbers from Traprain Law (Campbell 2011, 337). However, a review of the evidence for the reuse of Roman pottery at Anglo-Saxon sites in southern Britain, where availability of ancient pottery was less of an issue than in the north, has suggested that the collection of specific types of pottery was not only deliberate, but reflected a societal value for antiquities and the distant past (Eckhardt & Williams 2003, 156–7). Roger White discussed several possibilities for the reuse of Roman objects in Anglo-Saxon graves including pragmatism and the usefulness of the items, the status display of antiques and heirlooms, the possible cultic

qualities the artefacts may have conveyed or indeed that the objects 'imitated' contemporary high status goods (1988, 159–65). However, it is likely that a recycled Roman object conveyed several or all of these messages at once, and following the conversion to Christianity the reuse may have carried with them obliquely Christian overtones equating Roman objects with the Roman religion (Neuman de Vegvar 2001, 123 & 134–5). This value may have translated into people imbuing an object with talismanic properties, as suggested for Roman items from the early medieval cemetery at Whithorn (Dickinson *et al.* 1997, 296). The sense of the past conveyed by the object itself lent a new sense of meaning and value (Eckhardt & Williams 2003, 165). But Roman objects may also have held other, more aesthetic, values in the early medieval period. The choice to reuse Roman samian as spindle whorls from the fourth century AD onwards may have reflected its colour as much as its material qualities (Cool 2000, 54). Indeed, the qualities of red slipware sherds, and their potential to convey complex social messages, may have led to the reuse of three early medieval imported African Red Slipware sherds at Whithorn (Campbell 1997, 316). Carthaginian African Red Slipware is known to date from the fifth or sixth centuries and is found at a number of sites in western Britain typically in association with 'B Ware' amphorae *(ibid.,* 315–9). One of the reused African Red Slipware sherds from Whithorn is an unfinished spindle whorl, though the other two have been rubbed down on one edge similar to the samian sherds from Trusty's Hill and the Mote of Mark (ibid., 316). This may be taken to suggest that it was not the antiquity of a sherd that led to its reuse, but rather its colour, material qualities, and exotic Mediterranean origins in the wider Christian world which may in turn have conveyed status.

The single reused samian sherd from Trusty's Hill, like those from other sites, likely had a range of meanings. As a pragmatic object, the hardness and fine powdery fabric will have made it very useful as a source of jeweller's rouge for polishing metal objects. However, its use in the context of high status metalworking suggests it may have held other meanings to the smiths who used it. The overt representation of the Roman past, meant that the use of the object could have amplified the identity of the smith as a person connected to the wider Roman Christian world. If such an object was also seen as an amulet or somehow magical, then the sherd, and indeed the smith who used it, may have been seen as conduits to the supernatural (Heald 2011, 231). The Trusty's Hill samian sherd is best seen as an object imbedded with multiple messages from the practical to the otherworldly. Its conspicuous use in fine metalworking perhaps added

something to the status of the objects being finished on the site.

The only other pottery sherd from the 2012 excavations, from an imported Gaulish E Ware vessel from the Loire region, is a prime indicator of the status of the early medieval household of Trusty's Hill. Ewan Campbell's discussion of the sherd in Chapter 4, based on his study of early medieval Mediterranean and continental imports to Britain and Ireland (2007), suggests that Trusty's Hill was part of, and possibly central to, an elite redistribution network. Membership of this network allowed for the exchange of locally made goods for exotic Gaulish imports, and the gifting of these through clientage to others. While the evidence as it stands does not directly implicate Trusty's Hill as an importation centre, key characteristics (labour intensive defences, high status metalworking and the economic evidence discussed above) place Trusty's Hill's E Ware in the same context as royal redistribution centres such as Dunadd, Dumbarton Rock and Dinas Powys. The single sherd not only connects the site with a continental trade that seems to have specifically targeted the north Solway Coast, with large assemblages apparent at Whithorn and the Mote of Mark, and now supplemented by Trusty's Hill, but also with a network of exchange stretching from the Scilly Isles in the south to Argyll in the north (Fig. 4.2). Ewan Campbell's observation that the site may have been directly linked to Dunadd and Loch Glashan in Argyll through an extensive exchange network is particularly interesting given the other similarities in the material culture of these sites.

While the exact origin of E Ware is unknown, with Rouen, the lower Loire and the Saintonge in France all being candidates, it is clear that the pottery was imported directly to Britain from Aquitaine by Merovingian Gaulish sailors (Campbell 2007, 48). The trade network was established at some point in the sixth century and extended well into the seventh, though it seems to have been at its height in the early seventh century. E Ware in many forms was transported as a common component in a ship's cargo where they probably held little value in their own right, functioning as storage, partitioning or serving vessels. E1 storage jars, of which the Trusty's Hill sherd is an example, are the most common type of E Ware found at insular sites *(ibid.,* 35–6). Comprising 60% of the total insular assemblage, this suggests that the primary importation of E Ware reflected the demand for Gaulish goods contained within the pots. The contents of some pots certainly included Dyers madder, found as residue on sherds from Dunadd and Buiston, and used in the creation of red dyes for high status clothing (Lane & Campbell 2000, 243; Crone 2000, 158). Traces of dill and

coriander have been found in sixth century contexts in Whithorn and Buiston (Hill 1997 124; Crone 2000, 152–3). These jars may also have contained exotic fruits, nuts, oils, spices or even honey. Along with the jars, other E Ware forms found their way onto insular sites. These include E2 beakers, the second most common form in Britain and Ireland, while E3 bowls and E4 jugs appear to be restricted to primary importation and redistribution centres such as Dunadd, Whithorn and the Mote of Mark (Campbell 2007, 134). The quantity of E Ware in insular contexts is not great suggesting that the vessels and their contents were not the only imports. Weightier items such as wine barrels or blocks of salt may have been the primary cargoes of the Gaulish merchant vessels, though as yet no evidence for such imports has been found owing to the organic natures of such consumables. We might also expect exotic foods that might not need containers, as well as clothing, leather and metal objects and even holy books, though, again, no evidence for any of these has been found. One important class of import that has not yet been detected at Trusty's Hill was a select group of glass wine drinking vessels. Fragments of these have been found on a number of Scottish sites with E ware including the Mote of Mark, Whithorn and Dunadd. Their presence at these sites seems to back the hypothesis that wine was a major commodity in the trade network. Unlike the E ware, these were high status objects in themselves and useful in feasting rituals conferring status through their conspicuous display and use (Ingemark 2014, 237–9). In addition to these physical objects, it is also important to point out that intangible imports undoubtedly came to sites such as Trusty's Hill. Along with the ships' cargoes, the Gaulish merchants transported ideas and news to and from the continent. People, such as diplomats, warriors, monks, priests, and even slaves could have been passengers on the vessels. Seen in this context, the E Ware thus becomes more than a representation of trade but of the mechanisms by which ideas and people were shared from the continent to the lands around the Irish Sea. Apart from Whithorn, where the monastic settlement of Ninian may have been a special target because of its Christian connections, the primary delivery of E Ware and other goods was to high status secular coastal centres possibly by way of local harbours. It is worth considering if the mouth of the Fleet presented a natural anchorage and harbour for Gaulish sailors in a similar fashion to the Isle of Whithorn.

We can only speculate on the goods that flowed from such harbours back to Gaul. The evidence for high status craft industries at the sites where E ware occurs provides one possibility, though no

contemporary Insular metalwork or other objects have been found in continental contexts. As the evidence from Trusty's Hill demonstrates, the household here also controlled significant natural and human resources. Given the evidence for lead extraction in Galloway during this period, for instance, it is possible that metal ores or ingots were a potential export. Another possible export was wool or animal hides. Beyond this, it is difficult to say what could have been exported from the evidence so far recovered. It may be that slaves were exchanged for exotic goods to the Gaulish traders. St Patrick's letter to Coroticus certainly implies that active slaving was occurring between western Britain and Ireland in the fifth century AD (Hood 1978, 41 & 55), though to what extent this was still active in the later sixth century is unknown.

While E Ware primarily represents a trade in exotic materials, probably in exchange for insular goods of value, its use in insular contexts suggests that it did not hold much value in its own right once these transactions were complete. The Trusty's Hill jar appears to have been reused in an altogether different way than the originally intended transportation of exotic goods from the continent. The evidence of animal fats in the organic sooting residue on the inside of the sherd implies that once emptied of whatever imported material was originally in the jar, it became a handy utility vessel. Whether this utility was for cooking or perhaps melting animal fats for some industrial purpose is unknown. However, Campbell has shown that such uses were inconsistent with the E Ware forms and fabrics. Their course textures made them prone to breakage when heated, though a number of vessels on various sites seem to have been put to just this use. There is very little evidence for repair or even multiple uses. Some vessels seem to have been redeployed in craft working, while others show no evidence for reuse at all. As at Trusty's Hill many of the vessels are deposited in contexts that must date to soon after their initial importation, though it is impossible to say if this was months, years or decades. However, they did not become heirlooms or were apparently used in high status displays. Nor was there any apparent effort to mimic the pottery forms or create a new pottery industry, despite the fact that the crucibles from high status insular sites show a working knowledge of potting. This all lends credence to Ewan Campbell's suggestion that E ware as pottery was only useful for a short time after importation as utility items, and that it was actually the contents and the goods imported within E Ware vessels that were important (see Chapter 4). It is also apparent from the archaeological record that there seems to have been very little regard for Continental

knowledge of pottery manufacture and use. It is this fact more than any other that shows how royal, aristocratic and monastic households of E Ware importation sites were ascribing their own values and cultural meanings to Continental imports. Through using the items according to their own cultural needs, they were actively and passively negotiating with the knowledge the imports represented. As a result, hybrid uses, ideas and perhaps objects, in other words 'culture', were being created and redistributed through client networks.

Cultural identities and hybridisation

E Ware, like the Roman samian sherd, the thistleheaded pin, the Anglo-Saxon horse mount and the jewellery moulds, suggest the complex processes and trajectories of culture inheritance and creation at Trusty's Hill. Like Dunadd and the Mote of Mark, the centralisation of culture inheritance and creation was crucial to the status and ability to control the intertwined social, political and economic hierarchies that formed the core of power. Without the local control over produce and people, households at sites like Trusty's Hill were not able to access wider trading networks, produce high quality jewellery and other crafts as gifts to bolster their status and that of their clients or indeed engage in long-distance exchanges such as diplomacy and warfare.

In the early medieval period, when identities and allegiances were exceptionally fluid following the collapse of the western Roman Empire, it is generally believed that a tight control of high status goods production, used to legitimise power and cement relations, was a key to power and arbitrating complex social relationships through gift exchange (Campbell 2007, 124). Thus we find evidence for craft-working, employing industrial processes that were unhygienic, loud and producing unpleasant smells, in close proximity to lordly residences at highly visible sites in the landscape across Britain and Ireland. Arguably, this was culture creation as theatre, with the actual act and symbolism of producing hybrid high status objects equally important to the objects themselves (Heald 2011, 234). Indeed, recent efforts to explain metalworking outside hillfort power centres has led to new suggestions that metalworkers were sent to dependent settlements to create objects at these places thereby adding to their status and cementing social bonds *(ibid.)*. Regardless of whether this was in every case royal or aristocratic control of craftsmen rather than a broader spectrum of high status craft working on a variety of sites across different regions (Blackwell 2012, 12), it is important to

emphasise the close relationships between the craft specialists and their high status patrons, and the choices these two groups made together to create objects that made physical the social bonds of society.

Trusty's Hill may have provided an epicentre by which a complex chain of access, control and patronage could flourish in the late sixth and early seventh centuries. It no doubt created a rich atmosphere from which local craftsmen could create cultural objects imbued with structured meanings from the mundane to the special. These meanings ultimately stemmed from a wide variety of cultural sources, past and present. The imported pottery at Trusty's Hill reflects in many ways the sense of connection to the Roman past, a *pseudo-Romanitas,* that the local Britons of southern Scotland appear to have adopted during the fifth century AD through their conversion to Christianity and how they sought to distinguish themselves from neighbouring peoples (Forsyth 2005, 119; Fraser 2013, 17–19) and which is particularly evident in Galloway in the use of vernacular Latin around this time (Forsyth 2009, 33). The E Ware pottery demonstrates the participation of the household with a contemporary international exchange network linking the Insular Christian kingdoms with the Continent and the Mediterranean, but perhaps one that relied on a shared sense of a Roman past. This same sense of connectedness with the Roman past may likewise be behind the survival of the samian ware sherd. Given the Romano-British ancestry of dress pins (Laing & Longley 2006, 145–6), the finely made thistle-headed pin from Trusty's Hill, indicates the continued influence of personal dress fashions ultimately with their roots in the Roman period.

At Trusty's Hill, Roman material culture was reused in craft-working, possibly in the theatre of creating new high status items. Likewise, the items that were being created at Trusty's Hill and the Mote of Mark were being done so through the governance of shared Insular traditions. The Roman period brought about fundamental and continual changes to societies across the Empire and its frontiers that did not end or begin arbitrarily in the fourth or fifth centuries AD. Culture, as a continuum of traditions and the acceptance and resistance of new influences and ideas, went on. Material cultural traditions established in the second and third centuries in Roman Britain maintained trajectories into the fifth and sixth (Cool 2000, 54–5). At the same time, older artistic styles, such as Celtic triskele spirals were being revisited suggesting that older objects may have been in active circulation as heirlooms, or as recent discoveries on re-occupied sites, and invoked (or indeed created) collective memories of a distant

past (Blackwell 2012, 13). Harnessing past designs and incorporating them with more recent styles, such as interlace, could produce hybrid objects with complex messages for both the creator and eventual wearer *(ibid.)*. Thus, even simply stylised items could be highly meaningful.

The new culture and identities also being forged at places like Trusty's Hill, Mote of Mark and Dunadd were also crafted in part due to new knowledge and connections with the former Roman province of Gaul, ruled in the sixth and seventh centuries by the Merovingian dynasty. These connections brought exotic items, consumables and ideas that could be used in local contexts to bolster and maintain hierarchical relationships. These imports entered into the chain of local hybrid culture creation. The initial meanings and values attached to the items might have been quite different between the Gaulish merchants who brought them and the recipients who may have used them to develop and solidify their own contributions to Insular society (Campbell & Bowles 2009, 312). While the E Ware found at Trusty's Hill, like at Whithorn and the Mote of Mark, appears to have held little inherent value to the site's household, the goods that accompanied it may have been highly valued both in themselves and for their ability to confer prestige and a sense of identifiable connectedness to European affairs.

But it is the presence of seemingly 'Germanic' material culture at these same sites which is the starkest indicator of the complex cultural choices people had in early medieval Galloway. The Anglo-Saxon style gilded horse mount from Trusty's Hill can perhaps be seen in the same light to the moulds for Anglo-Saxon style decorative horse-gear from Mote of Mark and the gold filigree bracteate fragment from Tynron Doon (Laing & Longley 2006, 148–51; Williams 1971, 110–2). The mechanisms by which this material arrived or influenced production at these sites could range anywhere from the incidental encounters of individuals, to indirect trade, to more complex relations through treaty or warfare. But the moulds from the Mote of Mark demonstrate the actual manufacture of Anglo-Saxon inspired objects within a local British context. This is not unique in Northern Britain and does not require direct contact with the Anglo-Saxon world. Campbell and Lane established a convincing case for the smiths at Dunadd being crucial to the combination of Celtic and Germanic art into a hybrid, Hiberno-Saxon, style with the combination of Anglo-Saxon motifs with Irish styles to create unique metalwork (2000, 243–7). They also recognised that similar processes of hybrid culture creation, to that found at Dunadd and the Mote of Mark, were occurring at Dinas Powys in

Wales, where native British metalwork occurred alongside evidence for Irish insular styles (*ibid.*, 245–6). The presence of Germanic goods and the manufacture of Insular style objects at a range of sites across Scotland, now including Rhynie in Aberdeenshire (Noble *et al.* 2013, 1142), and the concomitant presence of objects made by British craftsmen in Anglo-Saxon settlements and burials in Northumbria (Cessford 1999, 157), suggests widespread and complex processes of acquisition, localized negotiation with styles and meanings, and the re-deployment of these objects in local contexts. Some Germanic objects may have been reused, others melted as scrap (though perhaps meaningfully so) while others still may have formed the baseline for mimicry of form and style in processes of material culture hybridisation. That these objects are occurring on high status sites is not insignificant, or in any way a direct indicator of cultural or ethnic affiliation for people residing at the sites. But what seems likely from the evidence of elite metalworking at Trusty's Hill, and crucially the occurrence of Pictish inspired carvings at the site, is that Trusty's Hill was at the heart of this process in south-west Scotland alongside the Mote of Mark and Whithorn. Elite Britons living along the Galloway Coast were drawing from Germanic and a variety of other insular stylistic sources and increasingly moving away from solely Romano-British antecedents over the course of the sixth and seventh centuries. They were actively creating unique culture through objects with shared meanings that could be used to reinforce local relationships, knowledge and practices. This was cultural hybridisation, not assimilation.

The concept of assimilation, the process by which culture is adopted, implies an almost passive regard for ideological or material culture by various participants in a cultural exchange. It also suggests that these concepts and objects have static meanings between groups and over time. The evidence from Trusty's Hill, the Mote of Mark and Dunadd does not accord well with the notion of assimilation. Instead, at these sites we have ample evidence for the households, and the smiths in particular, actively choosing between influences and producing objects with localised meanings. In other words, they were mixing culture to create new ideas and objects that would best fit their local social contexts. But at the heart of this process were conscious and subconscious negotiations between strands of individual, collective and external knowledge systems. It is important here to emphasise that these complex processes of hybridisation were taking place across the former Roman Empire and its frontiers (Bowles 2007, 6–7). Trusty's Hill and other high status sites in early medieval

Scotland were thus important places in the northern British trajectories of European hybrid culture creation. This was achieved through a variety of centralised exchanges, including trade and a patronage system based on perpetuating social relationships through gift exchanges and renders (Campbell 2007, 124). In order to maintain the relevance of material culture within this system the master craftsmen and other members of the household of Trusty's Hill undoubtedly possessed intimate knowledge of the cultural, economic, political and social trends of northern Britain and beyond.

Trusty's Hill, the Mote of Mark and Whithorn were far from being isolated assimilators of style and fashion. Rather, they were active participants in the creation of early medieval Scottish culture and were the epicentres of culture creation and distribution; amalgamating forms, styles and ideas from other groups along with their own unique presentations in order to influence social order. Laing and Longley, in discussing Anglo-Saxon material culture at the Mote of Mark, attempt to reconcile the metalworking evidence from the site in terms of either direct Northumbrian intervention or 'the assimilation of contiguous cultural influences' (2006, 168). Yet the Anglian materials and the evidence for the manufacture of Anglian styled objects must be read alongside the evidence for penannular brooch manufacture from the site and other objects such as pins that are neither Anglian nor frequently paralleled elsewhere in northern Britain. It is clear that the smiths at the Mote of Mark, as was likely at Trusty's Hill, were participating in the creation of objects inspired by a broad swathe of Insular art. That this had a heavy Anglian expression should not be surprising given the increasing influence of Angles in the sixth and seventh centuries. Links between Galloway and Bernicia may have been initially facilitated through the likely British origins of the Northumbrian subkingdom of Bernicia (Hope-Taylor 1977, 290–4 & 370; Wood 2011, 35–6) and are perhaps implied by the historical evidence for significant interactions between prominent Britons and this emerging Anglo-Saxon kingdom (Morris 1980, 36–8). Yet, the historical evidence only points to the 'set-piece' interactions of warfare, conversion and marriage alliance, but on an everyday basis the proximity of these two areas must have meant a great deal of cultural and social negotiation. In this context, we should *expect* the material culture of early medieval Galloway, before the Northumbrian hegemony in the later seventh century, to be influenced by Anglian styles. As the carved stone at Trusty's Hill suggests, a range of exchanges with northern British kingdoms, and different culture groups around the Irish Sea and northern Scotland, brought other

influences to Trusty's Hill.

The economic and cultural evidence from Trusty's Hill is sufficiently significant in quality if not in quantity to demonstrate that this site was likely the centre of an extensive estate, administered through complex chains of social bonding and clientage, that created culture and controlled a wide variety of resources across the landscape. Agricultural surplus of predominately barley and oats were paid to the household as renders, while crop diversification also brought produce such as flax and seaweed for craft production. Perhaps some of the most valuable resources were oak woodland and metal ores. Control and management of mature woodland and the extraction of mineral sources, and the ability to conspicuously consume these on a large scale if required, was a mark of the wealth and status of the household of Trusty's Hill. So too was its mastery of animal husbandry, particularly cattle herds, which were visible social currency and a source of prestige across Britain and Ireland. This allowed the household of Trusty's Hill to bind people to them as clients through gifts and feasts. The importance of feasting, where the discerning generosity of a leader in providing drink and food created loyalty by placing someone in social debt, is reflected in the way a cup, or its alcoholic contents – wine, bragget and mead – was often used a metaphor for lordly power and the strong bond between a war-leader and his followers in the early medieval poetry of the Britons of southern Scotland (Ingemark 2014, 237; Clancy 1998, 61–2 & 83). Livestock provided a ready and replete source of raw materials for food and craft and were thus essential to the successful economy of Trusty's Hill. But the control exerted on the local economy could only be achieved through the equally important provision of high quality products from the hillfort that allowed the people who were bonded to its household to maintain their own status in society. The economic, social and cultural prowess of the household at Trusty's Hill allowed it to flourish in the late sixth and early seventh centuries, but ultimately this wealth and power may also have led to the site's demise.

The vitrified rampart: conquest and destruction

The nucleated layout of the hillfort as well as the economic wealth, social status and sophisticated cultural connections of its household, clearly marks Trusty's Hill as a fortified, high status, secular settlement during the late sixth and early seventh centuries. The stature of Trusty's Hill during this period is also exemplified by the spectacular method of its destruction. The vitrified rampart exposed

during the excavation demonstrates that Trusty's Hill came to an untimely and violent end that was inextricably related to the nature and status of its household.

Experiments have shown that vitrification – the melting and fusing together – of stone ramparts took substantial man-power, timber resources for added fuel, experience, skill, and a great deal of time to accomplish (Childe & Thorneycroft 1938, 53–5; Ralston 1986, 25–38). The evidence from empirical experiments and from a range of archaeological sites clearly indicates that this was a destructive not a creative process, and deliberate not accidental. Often it was incomplete and coincided with the abandonment of a site, but crucially it always coincides with the burning of a timber-laced rampart core (Mackie 1976, 208–9; Ralston 1986, 18 & 38). The occurrence of timber beam slots in the vitrified walls at Dun Lagaidh in Wester Ross and at Cullykhan in Aberdeenshire show that timber-laced ramparts were required for vitrification to occur (Mackie 1976, 209; Ralston 2006, 153). However, unburnt timberlaced ramparts, such as Castle Law at Abernethy in Perthshire (Christison & Anderson 1899, pl. 1), illustrate that timber-lacing was not a construction device simply to enable a conflagration. The same patterns of burning and limited vitrification are evident in timber-laced earth and stone ramparts as well, such as at the contemporary sixth–seventh century fort at Clatchard Craig in Fife (Close-Brooks 1986, 132), but it is only in timber-laced drystone ramparts that substantial vitrification, and then only of the rubble core, is evident. Experimentation and archaeological evidence have demonstrated that setting rampart timbers alight was not casually achieved. The act of vitrification depended on pulling down the stone facing of a rampart to expose the core, continually piling a considerable amount of timber and brushwood against individual timbers of the internal framework, and setting fire to these with a favourable wind (Mackie 1976, 210; Ralston 1986, 38; Close-Brooks 1986, 132). It was not something that could be readily achieved in the heat of battle (Ralston 1986, 38) especially as vitrification is often apparent on the interior, not exterior, side of such ramparts. The need to spend sufficient time and energy to destroy a rampart is historically attested by Julius Caesar's observations on the difficulty of setting alight a stone-faced timber-laced rampart (Wiseman & Wiseman 1980, 145). The implication is that a fort had to be overrun by an invading force to allow sufficient access and time to achieve a fully vitrified rampart. Indeed, the high visibility of this act may have been more important than the actual destruction of the ramparts themselves. It has been observed during

modern experimentation that the sight of a timber-laced rampart in the process of vitrification 'edged by flames and glowing red in the night' for weeks or even months was a spectacular advertisement of power and the total destruction of the defeated regime (Ralston 1986, 38).

The evidence from Trusty's Hill consistently upholds these previous observations. In corroboration with Charles Thomas' results (1961, 64), the 2012 excavation revealed that the unheated outer and inner stone faces of the summit rampart on the east side of Trusty's Hill were toppled separately prior to the burning of the rubble core. The likeliest explanation is that these were intentionally pulled down in order to expose the rampart core and its timber substructure for ease of access and to allow oxygen to fan the flames. This no doubt increased draughts to the flames that came to engulf the rampart. It is likely that the entire circuit of the summit rampart was vitrified. The rampart core in both the eastern and western trenches on the summit was vitrified. The authors observed vitrified stone on an exposed scarp on the north side of the hill. Likewise, Charles Thomas recorded vitrified fragments in collapsed rampart rubble in the enclosed space immediately west of the carved bedrock and at the foot of the southernmost part of the summit rampart (1961, 65). While it is clear the entire rampart was destroyed by fire, the rampart core was not reduced to a single fused mass but rather discontinuous concentrations of vitrified stone around individual timber uprights. Where the rampart core was exposed and excavated on the east side of the summit, the position of the upright timbers was marked by post-voids ringed by a concentration of vitrified stone, which mirrors the negative timber slots encountered at Dun Lagaidh and Cullykhan, and providing more evidence for *in situ* burning rather than the incorporation of vitrified material from elsewhere. This helps explain another subtle clue to the process of deliberate destruction. It is likely that the evenly spaced hollows recorded during the topographic survey of the site and representing areas of collapse along the north-west portion of the rampart (Fig. 2.1), were in fact the locations where timber uprights were burned *in situ*. The failure to extract archaeomagnetic dates from seemingly secure sections of vitrification (see Chapter 3) thus reflects major slumping of the rampart after its destruction. This was particularly evident on the west side of the summit, where the collapsed outer stone face had long since dropped down the steep slope.

Surprisingly, the micromorphology analysis, of the charcoal rich dark soil deposit abutting the interior of the rampart core on the

summit's east side, found no evidence of in situ burning (see Chapter 5). This may be because the topmost part of this layer had been removed during Charles Thomas's excavation in 1960 and encountered in 2012 as backfill soil, which was observed to be largely indistinguishable in its composition, artefact assemblage and radiocarbon dating from the in situ lower levels of dark soil. Unfortunately, a soil micromorphology sample of the identical dark soil layer abutting the inner side of the rampart core on the west side of the summit was not taken for analysis. Nevertheless, an important observation can be made about the two dark soil deposits on either side of the summit. It is evident that each sealed the collapsed unburnt stone interior face of the rampart and were themselves sealed by the collapsed vitrified rubble core of the rampart. Stratigraphically this must represent the accumulation of occupation detritus *during* the destruction of the summit and its enclosing ramparts. This is borne out by the soil micromorphology analysis that indicated the dark soil on the east side of the summit resulted from a wet, actively churned, trampled and lightly vegetated occupation deposit (see Chapter 5). That occurrence of similarly composed dark soil deposits on the west side of the summit indicates a prolonged phase of destruction across the entire summit. The remainder of the site's defences and enclosures may have been similarly affected. The minimal accumulation of deposits sealed by the collapse of the lower defences (Fig. 1.10) hardly suggests that these features were upstanding for any significant length of time.

The evidence from Trusty's Hill points to a considerable, deliberate and co-ordinated effort to completely eradicate the fort's defences. While it is beyond reasonable dispute that vitrified ramparts, such as those at Trusty's Hill, are the result of deliberate arson, some contend that this deliberate destruction may mark the self-inflicted ritualised abandonment of a site (Bowden & McOmish 1987, 79). However, this interpretation lacks credibility given the repeated references to the besieging and destruction of forts by fire that begin to be recorded in a variety of annals from the seventh century onwards (Graham 1953, 72; Thomas 1961, 70; Alcock 1988, 31). Instead, there is a consensus that vitrified ramparts are the result of punitive destruction after the capture and pillaging of a hillfort, in order to permanently raze it in a spectacular exhibition of power (Childe & Thorneycroft 1938, 55; Nisbet 1974, 4–5; MacKie 1976, 206–10; Ralston 1986, 38; Close-Brooks 1986, 132; Audouze & Büchsenschütz 1991, 97; Armit 1997, 59; Harding 2004, 87; Ralston 2006, 163; Harding 2012, 189). This process of violent destruction serves to underline the defensive

character of the ramparts enclosing Trusty's Hill and which, together with the slingstones recovered from the eastern side of the summit, testifies that there was a tangible threat to defend against.

It is doubtful, however, that the destruction of Trusty's Hill was merely the consequence of a local neighbourly dispute. The magnitude of human resources required to achieve such destruction is likely to have been marshalled only at an interregional level and is one of the most compelling forms of evidence for warfare during the later prehistoric and early historic periods in Scotland (Toolis 2007, 309). While the political and social significance of the control of good quality timber required for the construction of the fort has already been discussed, it is likely that the large amount of fuel required for the combustion of the summit rampart derived from dismantled timbers from the settlement itself and probably also the felling of nearby woodland resources. As discussed above, timber resources were a valuable entitlement and means of exerting social and economic control in their own right. Their purposeful consumption for the destruction of the area's principle household will have had a profound resonance to the local population. The level of co-ordinated and prolonged destruction to raze Trusty's Hill therefore intrinsically reflects the status that the fort and its household once held. It was clearly important to devote substantial and valuable resources to its destruction in order to present a fiery spectacle that lasted days if not weeks and was visible for miles around. This was not just destruction, not even simply a public expression of destructive power, but a political statement with menace, marking an irreversible defeat and presumably aimed at a wide sphere of influence that centred upon the site.

But it is also possible that the destruction of Trusty's Hill was not an isolated affair. The destruction of the ramparts at Trusty's Hill in the early seventh century is comparatively close chronologically to the likely date, in the mid-to-later seventh century, for the destruction and rampart vitrification at the Mote of Mark further along the Stewartry coast, which was also vitrified in a deliberate act of demolition that abruptly curtailed occupation at this site (Laing & Longley 2006, 10 & 22–4). Given their morphological similarity to Trusty's Hill (Feachem 1977, 129–30), it is entirely plausible that the remaining cluster of vitrified forts in the Stewartry – Edgarton Mote, Castlegower and Mochrum Fell – were also destroyed around this same period in the seventh century. Altogether, the comparatively close dates for the destruction of Trusty's Hill and the Mote of Mark and the cluster of morphologically similar vitrified forts in the surrounding district of

Galloway raises the distinct possibility that their destruction resulted from a prolonged campaign or series of campaigns of violent subjugation of the region in the first half of the seventh century, rather than entirely unrelated incidents.

While Pictish raiders have been previously suggested as being responsible for the destruction of Trusty's Hill, as well as for the Pictish symbols at the site (Radford 1953, 237–9; Thomas 1961, 68–9), the identification of local Britons as the principal hand behind the carvings (see Chapter 6) similarly removes any particular focus on the Picts having any compelling relationship to the site's demise. There is plenty of evidence for other likely parties. Irish aggression in northern Britain, and indeed northern British aggression in Ireland, at least during the fifth century AD, is certainly attested by St Patrick (Hood 1978, 41 & 55). Around AD 603, Aedan, the king of Dalriada led an army into southern Scotland where it met disaster at the hands of the Bernicians during the battle of Degsastan, likely located in either Liddesdale or Lauderdale (Anderson 1990, 123; Anderson & Anderson 1991, 11). Inter-British strife in the late sixth century is attested at the battle of *Arterid* (Anderson 1990, 73–4), identified as Arthuret in northern Cumbria close to the Dumfriesshire border (Skene 1866, 98; Koch 1997, xxxii). However, it was over the course of the seventh century, when first Aethelfrith of Bernicia and Deira, followed by his Anglian successors, particularly Ecgfrith, conquered and made tributary the British kingdoms of the north, including Galloway, to expand the Kingdom of Northumbria (Anderson & Anderson 1991, 11; Smyth 1984, 23–4). It is perhaps most likely given their relatively close scientific dating that the fiery destructions of Trusty's Hill and Mote of Mark and perhaps the other vitrified forts in the Stewartry were the result of successful military campaigns by which the Britons of Galloway fell under the hegemonic control of the northern Anglian kings. Interestingly, all of these vitrified forts in the Stewartry, as well as the comparable fort at Kildoon in Carrick (RCAHMS 1953), lie within or very close to parishes where clusters of early Anglian settlement can be discerned from place-name evidence (Brooke 1991, 297 & 316–18) indicating not only a political, but also an attempted cultural purge by Northumbria in the middle of the seventh century.

The strong Anglian influence in south-west Scotland, at least in Dumfriesshire, was already apparent in the first half of the seventh century at Lockerbie where the construction of an Anglo-Saxon style hall over the site of an earlier, potentially British, hall, has been recognised as a visible display of Northumbrian dominance during a time of conflict (Kirby 2011, 54). The appropriation of existing

ecclesiastical settlements at Whithorn, Hoddom and Ardwall Isle may not have occurred until the later seventh century (Hill 1997, 40; Lowe 2006, 172 & 195; Thomas 1967, 177), but by around AD 730 a Northumbrian bishop had certainly been installed at Whithorn. Combined with placename evidence (Brooke 1991, 313), the excavation results from Whithorn, along with Hoddom and Ardwall Isle, affirm the establishment of flourishing Northumbrian enclaves over the course of the later seventh, eighth and ninth centuries (Hill 1997, 18). While there is some evidence that the Northumbrian possession of Galloway was at least in part a relatively peaceable affair (Brooke 1991, 300; Lowe 2006, 192–4), the vitrified ramparts of Trusty's Hill and the Mote of Mark corroborate the testimonies of the *Historia Ecclesiastica* and the *Life of Wilfrid* in demonstrating that the dominance of Northumbria was also achieved in no small measure through the violent overthrow and subjugation of the native British ruling elite. It is worth noting that one Anglian noble, perhaps King Ida of Bernicia, was known to his British enemies as *Fflamddwyn,* meaning 'the Flame-Bearer' (Koch 1997, xli).

A royal stronghold

The destruction of Trusty's Hill involved more than just the vitrification of its ramparts. The material assemblage from the site demonstrates what was being destroyed in this process of subjugation. This household's control of agricultural, timber and mineral resources, as well as gold, silver, leadedbronze and iron working, had given its members the power of patronage. Within the system of kinship and clientship that formed the basis of the early medieval social hierarchy in Scotland (Nieke 1988, 11; Karl 2008, 73–4; Blackwell 2012, 19–21), the control of these resources and processes equated to extremely significant power. By instigating craft production and channelling continental trade and exchange, both of which are apparent at Trusty's Hill, power and social position could be maintained by a household (Nieke 1988, 16), but crucially beyond what might be achieved solely from kinship ties. The destruction of Trusty's Hill undoubtedly removed this power and influence from the hands of the local British elite.

It is worth considering the socio-political impact of the site's demise a little further. The nucleated layout of the fort accentuated the hierarchical nature of society. The form and complexity of the ramparts not only offered practical defence but were a conspicuous exhibition of the control over local resources. The successive sequence of outer enclosures, elaborate entranceway and stout timber-laced stone-faced rampart encountered by anyone approaching the summit, was a deliberately ostentatious display of the prestige and status of its household. The likely flaunting of livestock in the outlying enclosures on the southern approach to Trusty's Hill may have been intended as a very public expression, not only of agricultural wealth, but successful leadership and a means of reinforcing legitimacy (Waddell 2014, 142). By the same token, the destruction of these outlying enclosures together with the capture of livestock both from Trusty's Hill and the surrounding area, and the conspicuous felling of managed woodland which no doubt accompanied its assault, sack and burning, may have been another way of demonstrating that the previous regime had failed. We should also not lose sight of the real possibility that the people who lived at Trusty's Hill perished here too. The destruction of this household, which lay at the pinnacle of the local hierarchy, was therefore a clear manifestation of the removal of power from the local elite. The vitrification of the timber-laced rampart around the summit removed the protection, whether implicit or explicit, that the former household could offer its clients, and the control of local resources and

redistribution of manufactured and imported goods that it once possessed. More than anything perhaps, the spectacular destruction of the nucleated fort at Trusty's Hill, conducted in a way that could only have been intended as a very public demonstration of power, brings early medieval politics to the fore of understanding Trusty's Hill.

This was not only the demise of a locally powerful household, but also a way of life. The political destruction of Trusty's Hill likely brought about substantial social change as dependent client relationships were erased along with the site. The rapid exchange of Brittonic and Anglian placenames in Galloway described by Brooke (1991, 313) exemplifies this process as a major cultural shift for the local population. It is likely that this process of subjugation was regional, consuming not only the Fleet valley but much of the north Solway coast. This begs the question of why the need for the dramatic whole scale destruction of Trusty's Hill. Was this hillfort merely the fortified settlement of local nobility or was it the seat of power of a king?

Detailed comparison with other contemporary secular settlements in south-west Scotland is useful in this regard. The Trusty's Hill assemblage might at first glance appear as the poor relation to the abundant quantity of imported goods and metalworking debris recovered from the Mote of Mark further east along the Galloway coast, or the impressive assemblage from Buiston Crannog in Ayrshire. Buiston Crannog, which was interpreted as a wealthy farmer's settlement or even the abode of minor nobility during the sixth and seventh centuries AD (Crone 2000, 64–6 & 165–6), yielded continental imports such as the partial remains of two E-ware vessels, fragments of a glass wine drinking beaker, traces of coriander, dill and black mustard, items of Anglo-Saxon provenance such as a thrymsa coin, copper-alloy cup bindings, an annular brooch, and evidence of metalworking *(ibid.,* 144–58). However, the scale of jewellery production at Buiston, which was extensively excavated, was only at the level of mending or reworking small amounts of copper-alloy for domestic consumption and not the actual manufacturing of fine metalwork *(ibid.,* 165–6). Buiston Crannog was therefore not a source of patronage but rather a recipient, or client, of patronage, likely from a major royal site *(ibid.,* 159). Furthermore, while Buiston Crannog was enclosed by a defensive timber palisade, its excavator observed that the site did not physically dominate its landscape nor did it occupy a large area, its roundhouse being comparable in floor area to that of a wealthy farmer in early medieval Irish society *(bid.,* 164–5).

Mote of Mark, on the other hand, which has yielded one of the

largest assemblages of imported pottery vessels and continental glass vessels in Britain and Ireland, was clearly a place of manufacture of high status items. The workshop produced decorated horse-gear and personal adornments that were undoubtedly used to establish and maintain client relations (Laing & Longley 2006, 172). Although Mote of Mark was surrounded by a timber-laced rampart that was destroyed in a similar manner to Trusty's Hill, it was not a nucleated fort *(ibid.,* 170). There is no sign of a hierarchical use of space in its layout, and indeed only a very small part of its rocky summit is actually habitable. The 8.5 × 4 m rectangular building that was identified there was certainly substantial but not sufficiently large by itself to indicate an exceptionally high status household (Laing & Longley 2006, 171–2). It was therefore interpreted by its excavators as the fortified workshop of a master craftsman during the sixth and seventh centuries *(ibid.,* 174 & 179). In this scenario, such a person was likely to have been of high status, with an estate to provide the material and labour resources required to house and sustain the site's inhabitants *(ibid.,* 174–9), but was probably dependent on royal patronage for the procurement of local and imported materials required for the manufacturing of items. In return, the workshop at the Mote of Mark undoubtedly served as a key instrument in the maintenance of royal power through the oblique control of high status metalworking which bound individuals into wider socio-political relations (Heald 2011, 230). While the principal inhabitants may have been craftsmen and their families, this does not exclude Mote of Mark as an occasionally royal residence. Indeed, the royalty of south-west Scotland may have been peripatetic and relied on the hospitality of sites like Mote of Mark and Buiston Crannog for cementing social bonds.

While the morphology of Buiston Crannog and Mote of Mark implicate these as middle-tier sites in the perceived social hierarchy of early medieval south-west Scotland, the range of exotica and quantity of artefacts recovered from both these sites is much more extensive than that from the contemporary royal British stronghold at Dumbarton Rock (Alcock & Alcock 1990, 113) or indeed Trusty's Hill. This simply reflects the reality that Buiston Crannog and Mote of Mark have been more comprehensively excavated (Crone 2000, 166; Laing & Longley 2006, 5).

While both Buiston Crannog and Mote of Mark offer similarities, the site that draws the closest comparison with Trusty's Hill is Dunadd in Argyll. Excavations there recovered one of the largest collections of imported continental pottery, brooch moulds and other metalworking debris from an early medieval site in the Celtic west (Lane & Campbell

2000, 98–148). Dunadd was clearly an important centre for the production of fine metalwork during the seventh and eighth centuries *(ibid.,* 204–11). The site yielded a range of metalwork, and evidence of metalworking, from iron weapons and tools to decorated gold, silver and copper-alloy jewellery *(ibid.,* 150–5). The material assemblage from Trusty's Hill, while much smaller, is closely comparable in quality to the sixth and seventh century assemblage from Dunadd (see Chapter 4; Table 7.1). Furthermore, while Dunadd continued to develop through the eighth and ninth centuries and beyond, the two sites shared a comparable scale of nucleated fort layout, comprising an upper citadel and lower precincts, during the late sixth and seventh centuries (Fig. 7.2).

But what draws the most compelling comparison with Dunadd is the immediate context of the carved stone outcrop at Trusty's Hill. The inscribed rock outcrop at Dunadd also lies within an entranceway zone to the summit enclosure. The Pictish inspired boar and ogham inscriptions on the bedrock at Dunadd are similarly associated with a rock cut bowl or basin (Lane & Campbell 2000, 13; Fig. 7.2). Also, as there is evidence at Trusty's Hill for the deliberate formal demarcation of the approach to the summit, so too at Dunadd was the entranceway space surrounding the carved rock separated from the rest of the fort by a stone bank forming an enclosure in the shelf below the summit – the excavators' Enclosure B (Lane & Campbell 2000, 13 & 250–1). This combination of rock cut features and the effort to separate the entrance space to the summit led the excavators to suggest that this was a ritualised entranceway with, based on analogy from Irish historical evidence, a clear role in the inauguration of kings (ibid., 251). As this widely accepted interpretation applies to Dunadd, so too must it apply to Trusty's Hill.

However, the two areas are not identical. The size of the rock-cut bowl at Dunadd, at 0.25 m in diameter and 0.14 m deep, is much smaller than the rock-cut basin at Trusty's Hill (Lane & Campbell 2000, 19). It has been interpreted as the remnants of a prehistoric cup and ring mark, though its size would be at the extreme end of such features. However, its later reuse in early medieval ceremonies is implied by its proximity to the other ceremonial carvings. It is worth noting in this regard the potential for the Trusty's Hill basin also being earlier than the early medieval phases of activity on the hill, as discussed above. Additionally, the authors observed a section of vertical outcropping that contained a large number of likely natural cup markings immediately to the west of the Pictish carvings at Trusty's Hill and within the largely unexcavated platform to the south

of the summit enclosure. While the cup markings are natural, this does not preclude the possibility that they carried some symbolic weight in addition to the basin and Pictish carvings. Regardless of the interpretation of the Dunadd cup mark, this does not alter the essential character of either the Dunadd or Trusty's Hill basins as containers linked in some way with other prominent symbolic carvings. Neither basins are functional wells, and natural springs do not feed either feature. Like the rock-cut basin at Trusty's Hill, the rock-cut bowl at Dunadd merely collects surface water. However, this rather prosaic attribute is unlikely to have been the principal purpose of these features. Given the proximity of the rock-cut bowl at Dunadd to the inauguration stone, identifiable by the carved footprint by which it's investiture role has been recognised (Lane & Campbell 2000, 247–9), it seems much more likely that the rock-cut bowl served in anointing rituals during the inauguration of the kings of Dalriada. At Dunadd, this function also carries an implied religious element as represented by the carved Ogham personal name, presumably that of a ceremonial witness or attendant, 'Finn the monk' (Forsyth 2000, 272) being situated adjacent to the Pictish boar carving. An equivalent ritualistic anointing role can be envisaged for the rock-cut basin at Trusty's Hill. Both basins may have also served a religious role as fonts or piscinas whereby the inhabitants of the hillfort and visitors may have sworn oaths. Such religious or ritualistic connotations could have continued at Trusty's Hill until the sixteenth century where, as noted above, coins were deposited into the basin in a possibly votive context. This is reminiscent of the depositions found in the well at Burghead in Moray (Ordnance Survey 1870, 19). Although the inscribed stone outcrop at Trusty's Hill contains no ogham (see Chapter 6) or inauguration footprint, and probably slopes too steeply to have been stood on in any case, the Pictish inscription and rock-cut basin combination at the summit entranceway nonetheless suggests that these were widely recognised ceremonial regalia used in highly visible political rituals for the inauguration of early medieval kings in Scotland.

Table 7.1 Summary of key indicators of status of fifth-seventh century sites in Celtic Britain and Ireland

Site	*Imports (pottery/glass)*	*Defended/ enclosed*	*Gold/Silver*	*Fine jewellery production*	*Weapons*	*Royal*
		Dumfries & Galloway				
Trusty's Hill	Cont.	▪	▪	▪	▪	▪
Mote of Mark	Cont.	▪	▪	▪	▪	
Tynron Doon		▪	▪			
Whithorn	Cont. Med.		▪			
		Scotland				
Dunadd	Cont.	▪	▪	▪	▪	▪
Dumbarton Rock	Cont. Med.	▪		▪	▪	▪
Edinburgh Castle Rock		▪			▪	▪
Rhynie	Cont. Med.	▪		▪		▪
Clatchard Craig	Cont.	▪	▪	▪		
Burston Cramog	Cont.	▪	▪		▪	
		Ireland				
Clogher	Cont. Med.	▪	▪	▪		▪
Lagore	Cont.	▪	▪	▪	▪	▪
Garranes	Cont. Med.	▪		▪		▪
Garryduff	Cont.	▪	▪	▪	▪	
		Wales				
Dinas Powys	Cont. Med.	▪	▪	▪	▪	▪
Longbury	Cont. Med.		▪	▪		
		SW England				
Cadbury Congresbury	Med.	▪	▪	▪		
Cadbury Castle	Med.	▪				
Tintagel	Med.	▪				

(Adapted from Campbell 1996, 85). Cont.: continental; Med.: Mediterranean

Apart from Dunadd and Trusty's Hill, there are few firm comparators for this phenomenon. The only other known Pictish inscribed stone to the south of Pictland was found around 1856 in Princes Street Gardens (formerly the site of the Nor loch) at the foot of Edinburgh Castle Rock. While obviously not in its original location, it is unlikely to have travelled a considerable distance (Fraser 2008, 64). The likeliest explanation for its presence is that it originated from the hill above in the context of the early medieval, sixth–seventh centuries phase of Edinburgh Castle. Like Dunadd, Edinburgh Castle Rock has been identified as an early medieval royal stronghold (Driscoll & Yeoman 1997, 29, 43, 45 & 227). It is widely accepted as the site of *Din Eidyn,* attested in the poetry of Aneirin as the royal court of the Gododdin of south-east Scotland (Koch 1997, xiii–xiv; Clancy 1998, 46) and also recorded in the Annals of Ulster and Tigernach as being besieged around AD 640 (Anderson 1990, 163–4).

Yet another comparison is offered by the recent archaeological evidence for an early sixth century Pictish royal site at Rhynie in Aberdeenshire. The site contained late Roman or post-Roman amphorae from the Eastern Mediterranean, the only recorded examples from eastern Scotland, glass Gaulish vessels, bronze toilet implements with Anglo-Saxon parallels and a range of moulds and crucibles for high status metalworking – all of which were unearthed around the Craw Stane (Noble *et al.* 2013, 1142). Significantly, the Craw Stane, which depicts a single pair of fish and Pictish beast

incised symbols, stood at one of the entranceways to a large timber enclosure that was burnt to the ground no later than the middle of the sixth century *(ibid.)*. The derivation of the name 'Rhynie' from 'Rhynnoid' meaning 'a very royal place' (Noble *et al.* 2013, 1145), would suggest that social memory preserved something of the status of this site long after it had ceased to meaningfully function as a royal site. This is not entirely dissimilar to how the status of Dunadd was remembered after it had been abandoned (Lane & Campbell 2000, 39–40).

Given the sheer number of Pictish carvings north of the Firth of Forth, it is unlikely that they were all associated with royal sites. It could be that the carved symbols outside Pictland (Fig. 7.3), such as the furthest southerly outlier at Trusty's Hill, could have served a very different purpose. The contexts of the carvings at Dunadd and Trusty's Hill, carved into bedrock and thus within their original context, are certainly different to most Pictish carved stones in north-east Scotland which are carved on free-standing stones. However, as the evidence from Rhynie, and perhaps the Burghead Bulls, suggest, the association of Pictish inscribed stones with royal inauguration rites may in fact have been a wider phenomenon that is now largely undetectable among the large number of Pictish inscribed stones that have been removed from their original contexts.

Indeed, both the similarities and dissimilarities between Trusty's Hill, Dunadd, Edinburgh Castle and Rhynie suggest they are independent responses to analogous political circumstances, but created within local social and political contexts. The key feature at Dunadd that directly relates to inauguration rites is the carved footprint. Without this footprint, and the historical evidence for Dunadd and the role of footprints and shoes in the inauguration of chiefs and kings in Gaelic Ireland and Scotland during the middle ages (Lane & Campbell 2000, 247–9), it is doubtful that the rock-cut bowl and Pictish symbol there would be recognised as related in any way to royal inauguration. The juxtaposition of these features at Dunadd suggest that they functioned as a group and were read together as such *(ibid.,* 249). The precise meaning or function of the Pictish symbols at all four sites is unknown but they perhaps represent the paraphernalia of royal investiture. If the meaning of Pictish symbol pairs is correctly understood as marking individual identity, specifically di-thematic personal names (Forsyth 1997, 94), then the Trusty's Hill symbols may have had an added meaning based on a hypothetical marital alliance between local British royalty and Pictish royalty. This has been postulated for the Trusty's Hill symbols

(Cessford 1994, 83; Laing 2000, 11) and such marital alliances are historically attested elsewhere during the seventh century (Clarkson 2010, 147). But while the crescent and v-rod, and double disc and z-rod, symbol pair at Princes Street Gardens might also plausibly represent a di-thematic name, it is more difficult to interpret the single boar representation at Dunadd or indeed the fish/beast symbol at Rhynie. The Dunadd boar is perhaps less a symbol, in that it may not have represented a name or word in the Pictish convention, and more an artistic interpretation of a concept: an event such as a feast (Forsyth 2000, 272), the characteristics of an individual or group, or even a totemic 'magic art' that ties the site to the supernatural in some way (Gordon 1966, 222–4). As such it is not a direct parallel to Trusty's Hill unless we view the right-hand symbols as a similar representation outside the conventions of traditionally paired symbols (see Chapter 6). The Dunadd boar is also closer to the Burghead bulls and other solitary animal figures in Pictland, in style if not in meaning, than it is to the wider corpus of paired Pictish symbols or indeed the Trusty's Hill symbols. Ultimately the intimate meanings of the carvings and representations found at Trusty's Hill, Dunadd, Rhynie and Edinburgh are unknowable, but the wider meanings can be adduced from their respective contexts. These are representations of power at regional power centres, two of which are historically attested as royal, and therefore the likelihood is that all sites with this combination are royal.

Notwithstanding the independent expressions behind the carvings at Trusty's Hill, Dunadd, Edinburgh and Rhynie, the secure dating evidence for high status occupation at all four sites provides some measure of relative chronology for these carvings. The most secure dating is probably that provided at Rhynie, which demonstrates that the enclosures there were built, occupied and burnt down over a short period of time in the late fifth to mid-sixth centuries AD (Noble *et al.* 2013, 1142). It seems unlikely that the Craw Stane was erected at a later date, at an entranceway for which little or no surface trace probably survived. The Pictish carved stone from Princes Street Gardens is out of its original context and cannot be closely dated archaeologically. But if it did originate from the royal stronghold of *Din Eidyn* atop Edinburgh Castle Rock, it too is unlikely to date to a period after the seventh century when the Gododdin of the Lothians were subjugated by Northumbria (Clarkson 2010, 126). The Pictish carving at Dunadd is considered, based on art-historical analysis, to belong to a seventh–eighth century bracket (Lane & Campbell 2000, 22 & 251). This accords well with the dated evidence for the

production of high status metalwork and control of long-distance trade from the site *(ibid.,* 262). Given that the rock-cut basin at Trusty's Hill can be stratigraphically tied into the demarcation of the entranceway to the hilltop citadel, no later than the early seventh century (see above), it is unlikely that the symbols carved opposite this feature were inscribed at a later date especially on the balance of analogy with Dunadd and Rhynie. The entranceway that these features both frame had ceased to actually lead anywhere after this date. It is also difficult to envisage a credible historical and political context, after the establishment of Northumbrian hegemony during the seventh century, for the appropriation of Pictish symbols in a manner that is only apparent at significant royal sites elsewhere in Scotland.

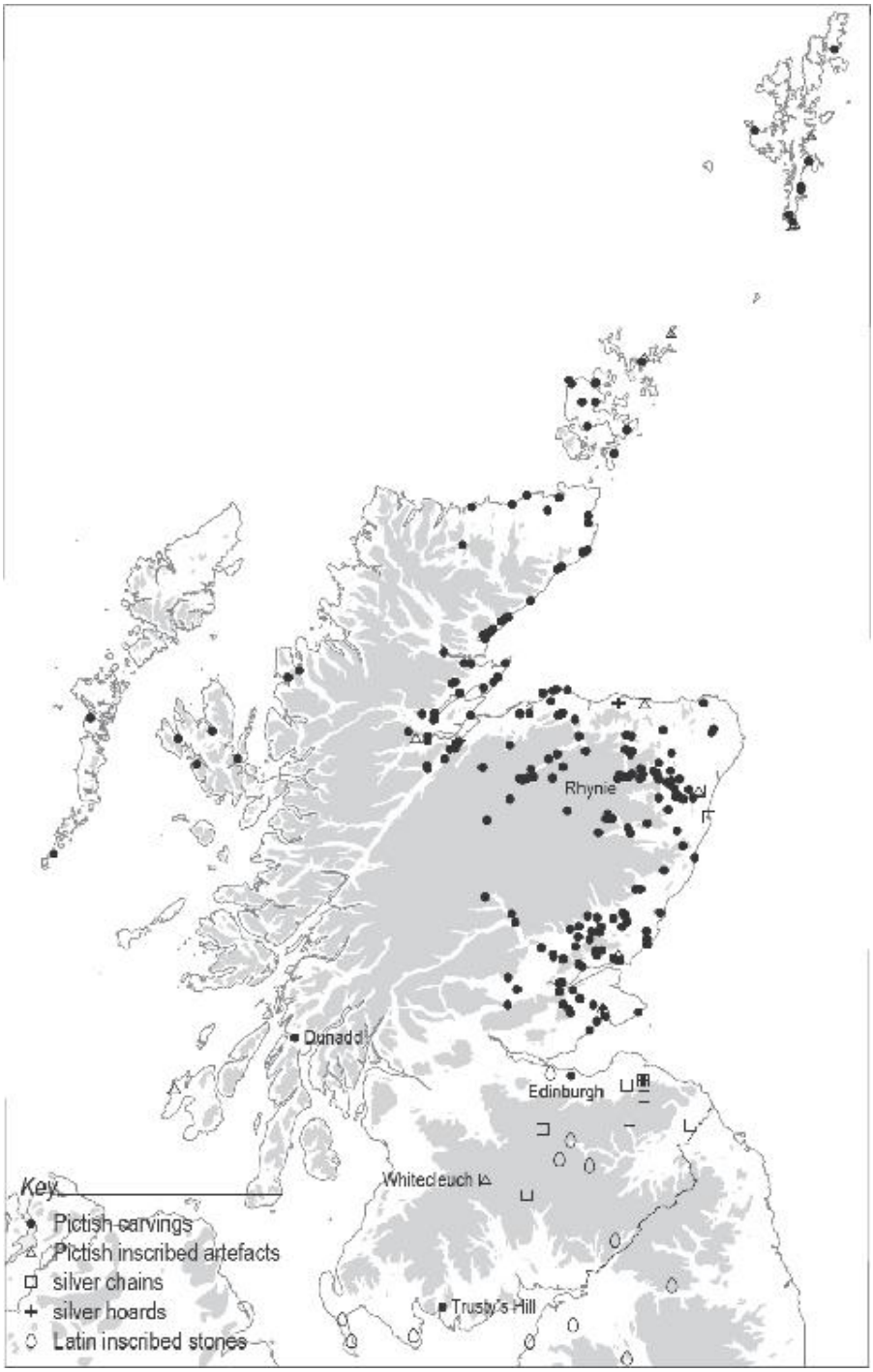

Fig. 7.3. Map of Pictish symbols, British silver chains and Romano-British Latin inscribed stones

Altogether this contextual evidence indicates that the inscribed

symbols at Trusty's Hill are far earlier than suggested purely from an art-historical perspective (see Chapter 6). While there is no reason to doubt that the Trusty's Hill symbols exhibit class I and class II traits, the difficulty of dating class I and class II symbols solely from art-historical criteria, or the possibility that class I only preceded class II with a long overlap, should be recognised (Cessford 1994, 82). The rather compressed chronology favoured by art-historical analyses, based on 'authoritative but unprovable opinion rather than definitive archaeological dating', is often at odds with the archaeological evidence (Harding 2004, 246). For instance, the sixth century context at Pool on Sanday only provides a *terminus ante quem* for the Class I symbol stone found face down there (Hunter *et al.* 1990, 185), and which could therefore be significantly earlier (Harding 2004, 248). Similarly, the Pictish Bulls associated with the ramparts at Burghead in Moray are normally dated on art-historical grounds to the seventh century *(ibid.),* yet the construction of these ramparts has been radiocarbon dated to between the third and sixth centuries AD (Edwards & Ralston 1980, 208). Indeed many of the Pictish Class I motifs belong to a common sub-stratum of early Celtic art that not only underlines the native Celtic Iron Age ancestry of Pictish symbols but raises further doubts as to the compressed art-historical chronology for Pictish symbol stones (Harding 2004, 244–8). It is of course physically possible that the symbols at Trusty's Hill, as well as those at Dunadd, Edinburgh and Rhynie, could have been carved much later than the sixth–seventh centuries, and each site's earlier significance was remembered to a greater or lesser degrees through subsequent centuries. But this requires an unnecessarily complicated explanation, such as linkages with Scandinavian mythology without locally corroborating evidence (see Chapter 6), that is inconsistent with the archaeological context and raises more questions than it answers. Why would the carvings at Trusty's Hill date to so many centuries after it ceased to exist as a fortified settlement while sharing so many of the traits of other royal sites in Scotland (Table 7.1)?

A further clue to the earlier date suggested here is the 'inexact' carving of the symbols. The intricacies of the symbols at Trusty's Hill indicate that these were genuine, but not done by a hand entirely familiar with the canonical forms from north-east Scotland (see Chapter 6). In the context of the hybridising processes of culture creation in early medieval northern Britain discussed above, perhaps the most likely explanation for their presence was their creation by an innovative local artist who was reconciling a knowledge of the symbols, but perhaps not their meaning, with local expression at

Trusty's Hill. That an artistic style from Pictland was borrowed or mimicked by local hands should perhaps be less surprising given the evidence for the active reflection of Anglo-Saxon styles and objects witnessed in the material culture of the Mote of Mark. If the local artisans were actively choosing wider insular styles, from groups with strong power bases, in creating their own royal material culture, why would they not also do so with stone carving? The presence of a double disc and Z-rod symbol on the terminal ring of the Whitecleuch silver chain from Lanarkshire, certainly of high status but perhaps even royal regalia (Cessford 1994, 83; Harding 2004, 248; Fig. 7.3) may offer further evidence for the appropriation of Pictish symbols in the elite trappings of Britons in southern Scotland. The use of such symbols on portable material culture, and the movement of such objects to Trusty's Hill, is one of the likeliest ways the left-hand Pictish symbol pair reached the site. The right-hand representation of the dragon could easily have had more local origins and need not necessarily be 'Pictish' at all. Zoomorphic, serpentine representations are common on early medieval European portable objects (Williams 2006, 140–1). The Trusty's Hill dragon's form is not only reminiscent of the canonical confronted S-shaped serpents depicted on a number of Pictish Class II slabs north of the Forth and the s-shaped creature on the iron axe-hammer pin from Rhynie (Noble *et al.* 2013, 1148; Fig. 6.7), but is also closely comparable with the zoomorphic forms depicted in the dragonheaded pin mould from the Mote of Mark which offers an important local parallel from around AD 600 for an S-shaped dragon with a curling tail (Laing & Longley 2006, 60–1, 146 & pl. 11). This mould, along with another mould depicting a pair of confronting zoomorphs from the Mote of Mark *(ibid.,* 152), not only suggests a much earlier date for the confronting pairs of dragonesque beasts than is usually attributed to the Class II Pictish symbols, but offers an alternative source of artistic influences within Galloway. This highlights the possibility of a non-Pictish origin for the dragon and sword and perhaps shares the connotations of martial prowess in the use of dragon epithets for kings and warriors in the Britons' own history and poetry of the sixth century (Clancy 1970, 23–4; Winterbottom 1978, 32; see Chapter 6).

The carvings, along with the basin opposite them at the entrance, are best viewed together as a meaningful pairing, perhaps drawing on the canonical pairing of Pictish symbols as a statement of identity and authority. These two features together are best seen as royal symbols of state perhaps adding a sense of legitimacy to social transactions such as inauguration. Thus, while the carvings inexactly mimicked

their northern cousins, they conveyed a shared northern British sense of royal authority and identity. The artist chose to reflect, though not exactly mimic, Pictish symbols because the motivating rationale for the inscription of these symbols stemmed directly from a local British context, not a distant Pictish culture. The symbols should not be seen as ethnically 'Pictish' in either form or meaning but were rather associated with the strength of identity and authority that such symbols conveyed in other parts of Scotland. It is contended here that they are best viewed as a hybrid 'royal stamp' on this site that may have been understood as such by contemporary visitors from across northern Britain. The stone's carver used knowledge of form and broad meanings of Pictish art and was inspired to meld that with their own creative flourish in a locally relevant place and fashion, in an attempt to legitimise royal power in the late sixth and early seventh century.

It is only in the fifth and sixth centuries that the emergence of royal sites is apparent in the archaeological record in Scotland. Indeed it is not possible to identify royal sites within the settlement record of Scotland prior to this. This is unlike Ireland, where a number of sacral royal sites have been identified by a combination of early Irish literature and archaeological evidence (Raftery 1994, 64–81). While there is an apparent trend across Scotland for enclosed single households, whether large timber roundhouses, crannogs or brochs, to achieve some level of pre-eminence during the first two centuries AD (Macinnes 1984, 241–4; Halliday 2002, 104), it is not yet possible to identify complex site hierarchies during the late Iron Age comparable to the early medieval pattern of secular, religious and funerary sites (Halliday 2006, 24). The only possible reference to royalty in Iron Age Galloway is the place-name *Rerigonium,* meaning 'very royal place' (Watson 1926, 34–5), recorded in Ptolemy's geography of the early second century AD and possibly associated with Loch Ryan which may preserve its name (Ordnance Survey 1978, 15; Rivet & Smith 1981, 447). Though a case has been made for the location of *Rerigonium* at Innermessan, on the south-east shore of Loch Ryan (McCarthy 2004, 125–8), the argument is based on circumstantial environmental factors rather than firm archaeological evidence. The broch at Teroy is the sole contender for a high status settlement nearby during the first or second century AD, though the single sherd of coarse Roman ware recently attributed to this site (Fraser Hunter *pers. comm.)* hardly bestows it with royal status. The development of more complex, nucleated, settlements, in association with an increasingly hierarchical settlement pattern as apparent in Galloway, therefore encapsulates a

move away from the tribal structures of Iron Age society in Scotland to the confederated kingdoms of the early medieval period. Significantly this was accompanied by the development of royal rituals and connections to European culture as integral elements of political authority as exemplified at Dunadd and Rhynie (Lane & Campbell 2000, 262; Cook 2013, 345–6; Noble *et al.* 2013, 1047).

The accumulated body of archaeological evidence therefore confers a royal status upon Trusty's Hill prior to its destruction in the early seventh century AD. For if the inauguration stone and its archaeological context are what mark out Dunadd as of royal predominance over other forts in Argyll, the Pictish inscribed stone and its archaeological context may also mark out Trusty's Hill in the same way over other forts in Galloway. Unlike other early medieval northern British kingdoms where the chief settlement is known – Dunadd for Dalriada, Din Eidyn/Edinburgh for Gododdin, Alt Clut/ Dumbarton Rock for Clut/Clyde and Din Guaire/ Bamburgh for Bernicia (see Fig. 7.6) – there is no historically attested sixth-seventh century 'capital' for the Solway region that can be mapped to a modern location. However, the lack of an historical record does not negate the potential for the archaeological record to illuminate the local and regional context of such a royal centre.

Trusty's Hill lies within a district of Galloway where a cluster of vitrified and nucleated forts is concentrated (Fig. 7.4) and which, as discussed above, may date to around the same period. But while vitrified forts such as Edgarton Mote, Castlegower and Mochrum Fell and nucleated forts including Barn Heugh, Stroanfreggan and Nethertown of Almorness, are morphologically similar to Trusty's Hill (Fig. 7.2), none of these has features such as rock-cut basins and carvings or formally demarcated entranceways. The archaeological evidence recovered from the vitrified and contemporaneous Mote of Mark indicated that this was most likely the fortified workshop of a mastersmith (Laing & Longley 2006, 174 & 179). Further to the north, in Nithsdale, the metalworking debris of another early medieval workshop was found below the fortified and prominent peak of Tynron Doon from which a gold filigree decorated panel, dated to the sixth–eighth centuries, was recovered (Truckell 1963, 94; Williams 1971, 112–17; Harding 2004, 209). There is some evidence that Tynron Doon was vitrified (Williams 1971, 117). These other sites in Dumfries and Galloway, along with the contemporary crannogs at Milton and Barean lochs (Henderson 1998, 230) and the galleried dun at Castle Haven (Alcock *et al.* 1989, 209; Cessford 1994a, 73–4; Laing & Longley 2006, 165), may represent the remnants of a well-preserved

hierarchy of early medieval high status settlements across the region. These may have served as the residences of related kin, local nobility, wealthy farmers and skilled craftsmen, over which a royal stronghold such as Trusty's Hill was dominant. Each settlement was presumably surrounded by an estate from which agricultural, labour and natural resources could be drawn and which formed the economic basis of their status (Laing & Longley 2006, 173–7), but crucially each was tied to the other through a chain of social and economic exchanges which ultimately ended at the royal household.

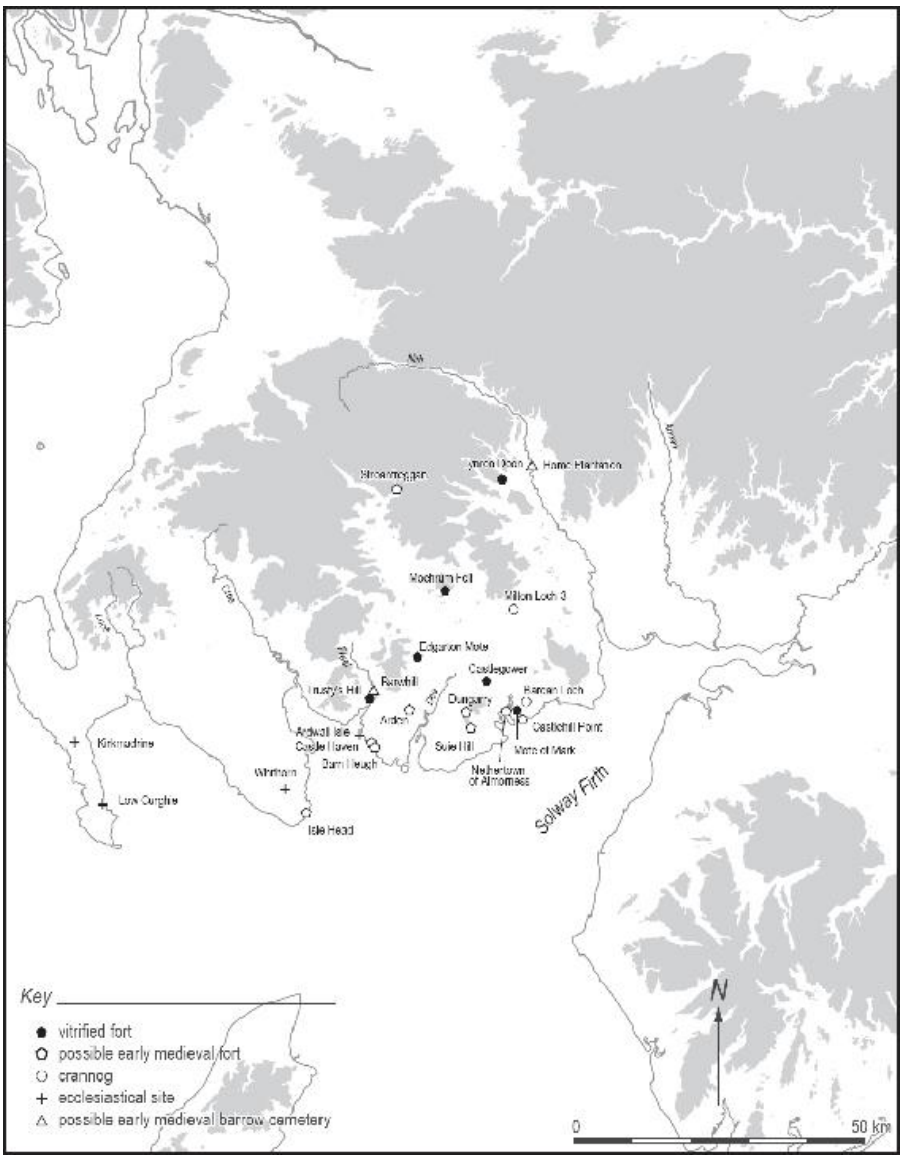

Fig. 7.4. Map of potentially contemporary sixth and early seventh century sites in

Trusty's Hill also stands out from these other sites by its close proximity to two places that may have added to the special, royal, status of the site. A short distance to the north of Trusty's Hill, at Barwhill (Fig. 7.4), is a barrow cemetery identified through aerial photography. This comprises a cluster of five barrows with a sixth outlier. It lies immediately outside a sub-square enclosed settlement of likely later prehistoric date, is near a Roman fortlet west of Gatehouse of Fleet, and lies to either side of a Roman road (Cowley 1996, 108–9). Each barrow is defined by a 1–2 m wide ditch enclosing a square, sub-square or round area measuring 3–10 m across and containing a single, central, burial pit. The Barwhill square barrow cemetery is one of a thin spread of similar sites identified across Dumfries & Galloway, and while some of these barrows might date to the Iron Age (Cowley 1996, 112), their distinctive type would normally be attributed to the early medieval period if found north of the Forth in Pictland (Halliday 2006, 12; Driscoll 2011, 267). The two square barrows at Thornybank in Midlothian, south of the Forth, also likely belong to this same early medieval period suggesting a wider distribution (Rees 2002, 349). The Barwhill barrows certainly conform to the dimensions of barrows identified in Tayside and Fife (Winlow 2011, 341) and the Dumfries & Galloway distribution includes a cemetery of seven ditched barrows at Home Plantation close to the Anglian decorated cross at Nith Bridge. Interestingly, this cemetery is also overlooked by Tynron Doon and may occupy an analogous situation to Barwhill. Recent geophysical survey of Barwhill has identified another five round barrows within the same cluster and confirms that the barrow cemetery largely respects the course of the Roman road (Jones 2014, 1 & 4). It therefore must post-date the first and second centuries AD. Furthermore, at least two of the barrows truncate the ditch fill of the unexcavated settlement enclosure to the immediate south of the cemetery. By analogy with excavated rectilinear enclosed settlements elsewhere in Dumfries and Galloway, such as Rispain Camp and Carronbridge, the settlement enclosure should be expected to date to between the late first millennium BC and early first millennium AD (Haggarty & Haggarty 1983, 40; Johnston 1994, 272–5). Again, this implies that the Barwhill barrow cemetery post-dates the abandonment of this settlement and belongs to the late Iron Age or early medieval periods. Similar barrow cemeteries, which appear to have flourished north of the Forth during the fifth and sixth centuries AD, tend to be interpreted as having high status burials (Winlow 2011, 349). While typically associated with Pictish culture, given the

mixture of cultural symbols and material culture at Trusty's Hill it is not improbable that the members of its household similarly chose to bury their dead in accordance with wider high status burial fashions. It is entirely plausible that Barwhill, located along a major route through the region and highly visible to people travelling along it, was the burial place for the royal elite of Trusty's Hill.

The other site that distinguishes the local context of Trusty's Hill from most other early medieval forts in Galloway is Ardwall Isle. Ardwall Isle is a small island visible from Trusty's Hill, just beyond the mouth of the Fleet and accessible by foot at low tide (Fig. 7.5). Charles Thomas, who excavated on the island after Trusty's Hill, confirmed that this was the site of an early Christian monastic settlement (Thomas 1966, 84). The earliest phase of this settlement, comprising a Christian cemetery focussed around the remains of a slab-shrine, was estimated to date from the late sixth century AD (Thomas 1967, 169) and therefore contemporary with the floruit of Trusty's Hill. Significantly, this slabshrine was perceived by the excavator to represent a direct cultural connection with Ireland but based on Mediterranean and continental influences *(ibid.,* 168–9). This compliments the evidence from Trusty's Hill and provides further evidence for far-flung contacts and influence in the immediate vicinity of the fort. The early Christian phase on Ardwall Isle was succeeded by the construction of a timber oratory or chapel, with a corner-post shrine, and early grave-markers probably in the seventh century; again related to Irish, continental and Mediterranean influences *(ibid.,* 169–74). The influences that shaped the chapel and graveyard reflect the development of the site into a centre of religious activity for the district. While the excavator perceived the brethren, as well as the architecture, as deriving from a large monastic centre in Ireland or Dalriada, it seems much more likely that the spread of Christian influence in Galloway, as manifested at Ardwall Isle, derived from much closer to home and that the site was a dependent of Whithorn, only ten miles away by sea.

Fig. 7.5. Ardwall Isle

Whithorn is widely known as the first Christian monastic settlement in Scotland as demonstrated by the fifth century AD Latinus Stone (Forsyth 2009, 30). It is likely that it was founded by the Bishop Ninian in the fifth century, though this has been called into question by recent commentators (Clancy 2001; Fraser 2002). Excavations of part of the large monastic settlement there recovered one of the most significant assemblages of imported pottery and glass vessels in the British Isles, with influences from Gaul particularly apparent during the sixth–seventh centuries (Hill 1997, 12, 28 & 297). The far-flung sources together with the sheer volume, range and quality of materials and sophisticated rural technology recovered from Whithorn *(ibid.,* 28) indicates that the community here was at the forefront of Christian culture in the Atlantic West, with direct contacts to the continent and Mediterranean, and the pre-eminent monastic settlement in Scotland during the fifth, sixth and early seventh centuries. Tied to Whithorn is the important early Christian centre of Kirkmadrine, in the Rhins of Galloway, the site of three Latin inscribed stones which commemorate priests or bishops who practised in a formal hierarchical ecclesiastical structure in the sixth century (Hill 1997, 6). A further lost inscribed stone once lay at Lower Curghie a short distance south of Kirkmadrine, which commemorated a subdeacon, while the Petrus Stone originally standing just outside

Whithorn (Hill 1997, 6) indicates a continuing ecclesiastical site here in the sixth century. The strength of the archaeological and historical records surrounding Whithorn suggests that it was the centre from which all other early Christian churches and monasteries across south-west Scotland, such as Kirkmadrine, Ardwall Isle and possibly including Hoddom (Lowe 2006, 192) were founded. This was almost certainly associated with, if not actually providing some impetus for, the distribution of fifth and sixth century Latin inscribed stones across southern Scotland and north-west England (Fig. 7.3). The historically documented establishment of a Northumbrian bishopric at Whithorn by the eighth century marks the cultural appropriation of a strong and unique strand of British Christian traditions in south-west Scotland (Wooding 2009, 13; *contra* Fraser 2002, 57–8). While Ardwall Isle may have been a dependent of Whithorn, its connections with Trusty's Hill may also have been important to its existence. Indeed, it is interesting to note the close connectedness of island Christian communities, physically separate from the secular word, with royal centres. Bamburgh, as capital of Northumbria, was intimately connected with the Holy Isle of Lindisfarne founded in AD 635 on behalf of King Oswald by the Iona trained Irish St Aidan (Rollason 2003, 119). Dunadd was likewise intimately connected to the Columban monastery on Iona (Lane & Campbell 2000, 262). One might also venture that there are potentially similar connections between Edinburgh and the islands of the Forth. A cross slab from Inchcolm indicates an early Christian church or oratory there long before the construction of the medieval abbey (Allen & Anderson 1903, 365–6).

Close connections between kings and monastic bishops is to be expected. As St Patrick's complaint to the soldiers of Coroticus demonstrates (Hood 1978, 55), ecclesiastical communities and leaders in northern Britain and Ireland were influenced by, and sought to influence, secular leaders such as this mid-late fifth century king of the Rock of the Clyde (Fraser 2013, 16). They did not co-exist entirely separate from each other. This is manifested in the archaeological record of Galloway most clearly by the imported pottery and glass from the secular workshop at the Mote of Mark and the monastic settlement at Whithorn. The assemblages are so similar that they are considered to derive either from the same merchant or were part of the same redistributive system along the Solway Coast (Campbell 2006, 113). It is highly improbable that secular and ecclesiastical settlements were importing the same types of goods entirely independently of each other. Whithorn is obviously not coastal and it

is commonly assumed that the imported pottery and glass and other perishables came via the traditional portage at the Isle of Whithorn (Alcock & Alcock 1990,119; Hill 1997, 5–6; Thomas 1997, 98). The entrance to the port is guarded by a large and strongly fortified promontory fort (Toolis 2003, 50–1). An early medieval clay mould recovered from the Isle of Whithorn, and similar to examples from the Mote of Mark, is thought to originate from this fort at Isle Head (Radford 1957, 169; Truckell 1963, 93), which might suggest that this site was a high status secular counterpoint to Whithorn. Certainly, Isle Head fort stands out amongst the many promontory forts of the Galloway Coast in terms of its size and the relative scale and complexity of its ramparts as a place of strength with ready access to the sea (Toolis 2003, 69; McCarthy *et al.* 2010, 49). It is perhaps significant that the most closely comparable promontory fort on the Solway coast, Castlehill Point, at a headland barely a mile beyond the Mote of Mark, has also yielded possible early medieval finds (Truckell 1955, 18; RCAHMS 1953; Feachem 1977, 129; Toolis 2003, 66).

While Trusty's Hill may be an early medieval royal stronghold, perhaps the place of inauguration, it need not be the sole royal centre in the region. Since a principal function of such major defended sites was to receive the tribute owed to the king by the surrounding population – enabling the royal household to focus on craft production, gift exchange, long distance trade and exchange and warfare – it is inherently plausible that this might have been organised through the establishment of a series of strongholds occupied by clients or stewards and visited periodically by a royal progress. This model is envisaged for the major defended sites of Dunadd, Dunollie and Dunaverty in Argyll between which the kings of Dalriada may have progressed, administered their kingdom, displayed largess, and thus exercised and consolidated power (Nieke 1988, 11–16). Such itineration was an essential element of early medieval kingship in Wales, Ireland and England as well, where 'it made more sense to bring the royal household to the food than the food to the royal household' (Charles-Edwards 1989, 28). A king may have had as many as three royal residences in early medieval Ireland, but only one principal royal 'fort' (Warner 1988, 61). While not unequivocally the case, Lane and Campbell have argued that this model was 'not unreasonable' for Dalriada with Dunadd as its chief seat (2000, 260–1). It is thus possible that the promontory forts on Isle Head and Castlehill Point, or indeed Mote of Mark and the other unexcavated vitrified forts in Galloway, belonged to a similar model of early medieval strongholds tied together by social ties facilitated through

royal progress. Unlike other early medieval kingdoms, the coast and a sea based progress may have been integral to this system operating in the Solway. The coastal sites such as Isle Head, and the sites located inland but with views of bays and ports such as Trusty's Hill, the Mote of Mark, and perhaps the nucleated fort at Nethertown of Almorness across the bay from the Mote of Mark, suggest that a maritime redistributive system, based around prominent secular defended centres (Campbell 1996, 84–8), in which high status ecclesiastical sites and many of the other less pre-eminent secular settlements in Galloway also participated, was fundamental to maintaining a unified kingdom in Galloway.

If the cumulative weight of archaeological evidence allows Trusty's Hill to be recognised as a royal stronghold surrounded by a complex hierarchical settlement pattern, can we equate this putative kingdom with one of the northern British kingdoms of the sixth and early seventh centuries?

It has commonly been considered that Galloway, along with the rest of the Solway region, lay within the elusive kingdom of Rheged (Williams & Williams 1968, xxxviii; Harding 2004, 206). This argument has relied on the absence of firm evidence for Rheged's geographical location in comparison to other kingdoms. Thus, Rheged has traditionally been placed in the historical blank space that southwest Scotland and north-west England occupies on the map of sixth/seventh century northern Britain. Around this blank space were situated an arc of better documented northern kingdoms – Dalriada in Argyll, the Rock of the Clyde in Clydesdale, Gododdin in the Lothians and Bernicia in Northumberland. The historical evidence for the principal power centres of these kingdoms – Dunadd, Dumbarton Rock, Edinburgh Castle Rock and Bamburgh Castle respectively – have all been corroborated by historical and archaeological evidence (Lane & Campbell 2000, 263; Alcock & Alcock 1990, 119; Driscoll & Yeoman 1997, 45; Hope-Taylor 1977, 370). According to this argument, Rheged cannot have been within these regions and therefore it must have occupied another area somewhere in between.

Unfortunately, the historical record for Rheged is extremely meagre, comprising a series of poems praising the martial exploits of Urien of Rheged and his son Owain, attributed to the late sixth century poet Taliesin (Clancy 1998, 79) but contained within a thirteenth century manuscript collection (Laing & Longley 2006, 160). There is also an entry in the early ninth century *Historia Brittonum* recording the late sixth and early seventh century line of early Anglian kings of Bernicia. We are told:

> '…four kings fought against them, Urien, and Rhydderch Hen, and Gwallawg and Morcant. Theodoric fought vigorously against Urien and his sons. During that time, sometimes the enemy, sometimes the Cymry [fellow countrymen *i.e.* the Britons] were victorious, and Urien blockaded them for three days and three nights in the island of Metcaud [Lindisfarne]. But during this campaign, Urien was assassinated on the instigation of Morcant, from jealousy because his military skill and generalship surpassed that of all the other kings'. (Morris 1980, 38)

In addition to recounting Urien's fate, the *Historia Brittonum* also perhaps provides a clue to that of Rheged as well. It states that King Oswiu (642–670) was wed to 'Rienmellt, daughter of Royth, son of Rhun' who was himself a 'son of Urien' (Rollason 2003, 88). This marriage of the Northumbrian and Rheged royal lines in the 640s, coupled with the archaeological and historical evidence for the Northumbrian domination of Galloway in the seventh century, suggests that this political act fused the two kingdoms together (Smyth 1984, 22–4). Later in ninth and tenth century Welsh poetry, Rheged became a metaphor for a vanished heroic Brittonic past (Clancy 1998, 152).

Urien is most commonly associated with Rheged in Taliesin's poetry, though he also appears as lord over other regions and places, such as *Idon, Llwyfenydd, Yrechwydd, Aeron* and *Catraeth* suggesting his power extended to a larger hegemony. However, neither Rheged nor these other regions can be confidently identified on the map. This has led researchers to suggest widely divergent locations for Urien's Rheged, in Wales, Lancashire, Cumbria, Dumfries and Galloway, Redesdale and Loch Lomond (Williams & Williams 1968, xxxviii–xxxix). So while Taliesin's *Idon* (modern Eden) and *Llwyfenydd* are commonly equated with the valleys of the Eden and Lyvennet rivers in Cumbria (Williams & Williams 1968, xlv; Laing & Longley 2006, 162–3) this has been dismissed by others as based on either mistranslation, a 'sounds like' etymology, or attributing these nonspecific topographic words that could be applied to many places with modern place-names that seem to preserve them (McCarthy 2002, 372; Clarkson 2010, 70–3). When Urien is described as lord of *Yrechwydd,* this may be 'a flow of water, a tidal current' and therefore readily recognisable as the Solway (Watson 1926, 156) or it may mean 'fresh water' or 'land of fresh waters' and identifiable as the Lake District or the cataracts on the Swale (Williams & Williams 1968, xli; Laing & Longley 2006, 162). When Urien is praised as the defender of *Aeron,* Taliesin could have meant Ayrshire in south-west Scotland or Airedale in Yorkshire

(Williams & Williams 1968, xlvii). Even one of the most apparently certain locations Urien ruled such as *Catraeth* commonly identified as Catterick (Laing & Longley 2006, 163), is not beyond doubt. It has been argued that though philologically their names might have the same origin, there is no actual record of Catterick ever being called Catraeth and that its potential meaning of 'battle shore' may not have meant Catterick at all (Dunshea 2013, 84–101). The problem is that the identification of the place-names in the poetry of Taliesin, or his contemporary Aneirin, will never be secure (Clancy 2013, 156).

The same lack of consensus applies to the few place-names that survive on the modern map which may relate directly to Rheged. Place-names such as Rochdale in Lancashire, recorded in the eleventh century as Recedham and thought to retain in the first element of its name a word similar to Rheged, could also derive from Old English *reced* meaning 'hall' or 'house' (Clarkson 2010, 72). Similarly, Dunragit in the East Rhins of Galloway has long been thought to mean 'the fort of Rheged' (Watson 1926, 156; McCarthy 2002, 359), but could alternatively mean the 'fort of the women' or 'fort of the hags' (Laing & Longley 2006, 164). Likewise the phrase *tra merin Reget* from the Book of Taliesin has been translated as 'beyond the sea of Rheged'. Yet this vague reference, which certainly suggests Rheged had a coastline (McCarthy 2002, 372) can be taken to imply the Solway Firth (Williams & Williams 1968, xli), Luce Bay (McCarthy 2002, 372–3) or is simply a 'vague signpost pointing north from Wales' (Clarkson 2010, 72). Reconciling the meagre historical record with place-names is hampered by the insurmountable difficulty in identifying what places, such as the Fleet valley, the Solway Firth and Galloway, let alone the many individual settlements, were actually called by the local Britons before Anglian and Norse-Gaelic derived names replaced them during later centuries.

Indeed the historical credibility of Taliesin's poems and the *Historia Brittonum* is keenly disputed with arguments that these are later medieval Welsh constructs *(e.g.* Dumville 1977; Padel 2013). Yet, these arguments lack historical coherence and contradict the testimony of late fifth and sixth century writers such as St Patrick and Gildas (Hood 1978, 55; Fraser 2013, 15–16; Winterbottom 1978, 29 & 34; Williams & Williams 1968, xxxv). They are in large part a rather nihilistic response to often naïve uses of these sources as offering historical facts (Dunshea 2013, 92 & 104–7; Clancy 2013, 165; Koch 2013, 197). Instead an alternative approach to the poetry of Taliesin and Aneirin avoids treating them as 'history', but instead as literature set within a historical landscape and context (Dunshea 2013, 105).

While techniques of literary analysis can be useful when examining individual sources, it must be remembered that such historical sources are 'witnesses', to greater or lesser degree, advocating a particular view of reality (Heather 2006, xiv). Corroboration is the most appropriate tool when testing the credibility of these 'witnesses' and should not be so conveniently sidestepped *(contra* Dumville 1977, 182). Nor should the archaeological record be studied in isolation to the historical record of the same region over the same period (Alcock 1988, 22; *contra* Dumville 1989, 213).

With this disclaimer in mind, it is worth briefly discussing the landscapes that Taliesin claims formed the background to Urien's exploits. There are several places and regions associated with Urien that can be perhaps more confidently identified. These are located across central Scotland and north-east England, forming an arc around south-west Scotland & northwest England (Fig. 7.6). The battle at *Rhyd Alclud,* 'the ford of the Clyde' is accepted by most as upriver from Dumbarton Rock (Clancy 2013, 155), which perhaps makes Urien's reputed defence of *Aeron* more tenable as Ayrshire than Airedale. The raid into *Manaw* is probably *Manaw Gododdin,* the plain of the Forth where Slamannan and Clackmannan preserve its former name (Clancy 2013, 156 & 160), However, the possibility that *Manaw* referred to the Isle of Man cannot be entirely discounted. The battle at *Brewyn's* cells may have been the derelict Roman fort of Bremenium in Redesdale (Laing & Longley 2006, 163; Clarkson 2010, 77), while the *Historia Brittonum* records Urien leading a campaign of four regional powers against the Angles of Bernicia at Lindisfarne, identified by its Brittonic name of *Medcaut* (Morris 1980, 38). One of the other British kings in this alliance led by Urien, Rhydderch Hen, can be confidently identified as the king of the Rock of the Clyde and a contemporary of St Kentigern and St Columba around the end of the sixth century AD (Clancy 2013, 160). The relationship of Urien with the better documented Rhydderch Hen and the line of Anglian kings indicates he flourished sometime between the 570s and the 590s (Laing & Longley 2006, 161; Fraser 2009, 127). Another king, Gwallawg, is usually identified as the ruler of Elmet in West Yorkshire, but who is attributed to several battles in southern Scotland by Taliesin (Clancy 1998, 91). A shaky alliance forged to destroy a common enemy on the ascendant, namely Bernicia, perhaps explains how four kingdoms came together, but does little to solve Urien's demise at the hand of the last of the four kings, Morcant, whose kingdom is even more elusive than Urien's. It may be that Morcant was a rival of Urien's and perhaps held territory that was often in conflict with Rheged.

Taliesin's oft repeated exaltation of Urien as a cattle raider suggests that his campaigns were motivated by the desire to exact cattle tribute from neighbouring kings and so gain wealth and supremacy over them, a common political manoeuvre amongst early medieval Celtic kingdoms (Charles-Edwards 1989, 30). This would seem to limit the range of much of Urien's campaigning to areas bordering Rheged. The *Historia Brittonum* and the poetry of Taliesin appear to paint Urien of Rheged as the king of the pre-eminent kingdom of northern Britain during the later sixth century, a kingdom that was rapidly expanding out from a core area somewhere in south-west Scotland or north-west England during his lifetime. But is there any archaeological evidence to corroborate this?

Carlisle, long attributed as the 'capital' of Rheged *(e.g.* Dillon & Chadwick 1973, 108; Smyth 1984, 21; Cessford 1999, 150), has failed to produce any of the archaeological evidence, found at other elite secular settlements, to support such a claim (McCarthy 2002a, 147; 2014, 241). Carlisle has been thoroughly investigated over many years and though post-Roman occupation is undoubtedly apparent, it is clear that its size and status had greatly diminished from a Roman town to something more akin to a minor estate centre (McCarthy 2002a, 137–9; 2014, 241–2). There is also evidence for continued occupation at some of the Roman forts along Hadrian's Wall, notably Birdoswald and Vindolanda. A series of fifth and sixth century Latin inscribed stones from Vindolanda, Maryport, Brougham and Old Carlisle appear to be part of the same distribution of such inscribed stones across southern Scotland (Dark & Dark 1996, 60–2; McCarthy 2002a, 134–7; Fig. 7.6). However, it is unclear if these former Roman military sites continued to be occupied into the late sixth century. Likewise, the enclosed settlement at Ewe Close near Crosby Ravensworth is often equated with Taliesin's *Llwyfenydd* and although part of the site overlies, and therefore post-dates, a Roman road, excavations there only yielded Roman material with no evidence to suggest occupation in the sixth century (McCarthy 2002a, 147). There is a perceptible dearth of known post-Roman settlements in Cumbria (Harding 2004, 205) with no archaeological evidence to support the traditionally assumed expanse of Rheged, centred upon Carlisle and focussed on a massive area from Lancashire to Ayrshire.

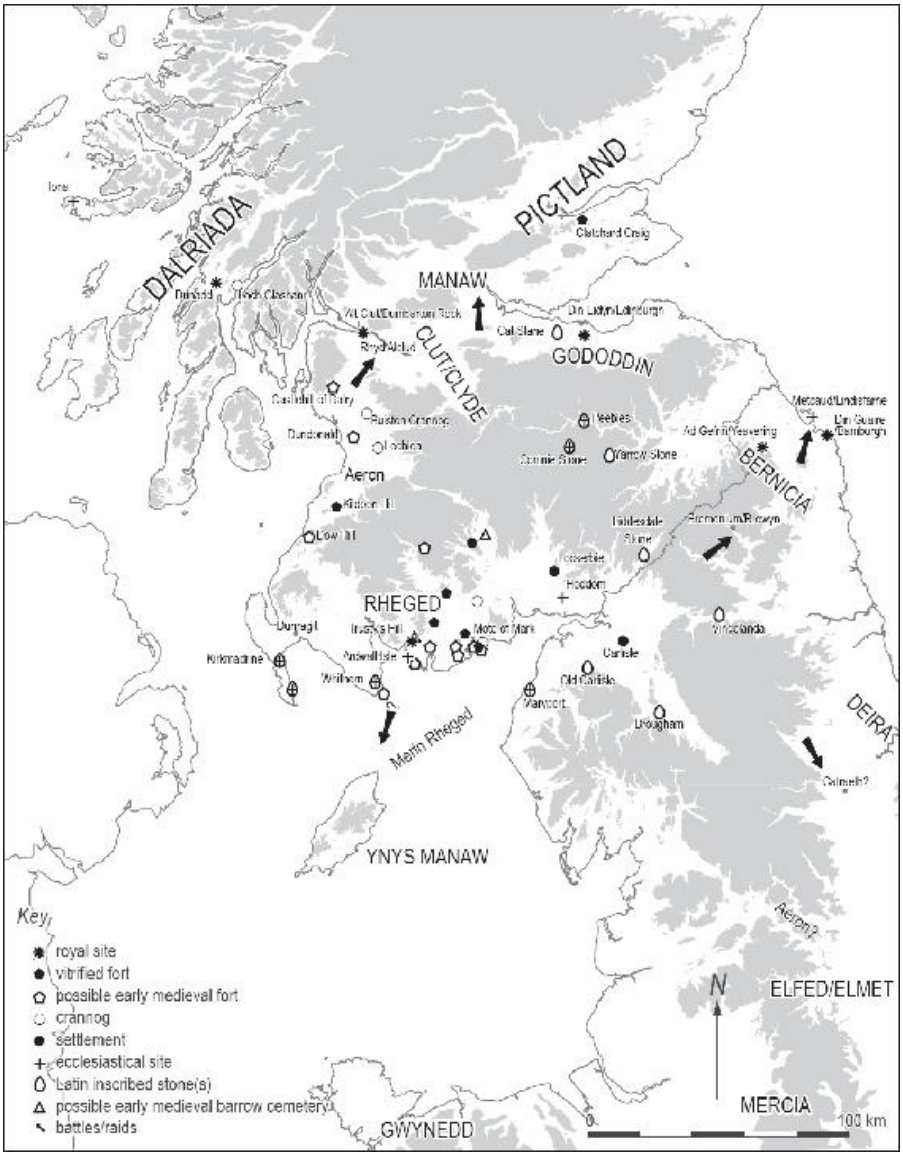

Fig. 7.6. Map of Rheged and neighbouring kingdoms of northern Britain during the sixth and early seventh centuries

An alternative scenario has been suggested where the core of Rheged lay instead in the Rhins of Galloway (McCarthy 2002, 377). However, the case for this is based not on any compelling archaeological evidence but rather the agricultural quality of its soils and frequency of sunshine relative to other parts of southwest Scotland *(ibid.)*. The argument also seeks to link the place-name *Rerigonium,* 'most royal place' seen as being located somewhere near Loch Ryan during the first and second centuries AD, with *Penrhyn*

Rhionydd, one of the three national thrones of Britain according to the later medieval Welsh Triads (McCarthy 2002, 377). While this link might be philologically plausible (Watson 1926, 34) there is no corresponding historical or archaeological support. As noted above, the interpretation of the place-name Dunragit as the 'fort of Rheged' *(ibid.,* 156) is not conclusive. More importantly, the morphology of the unexcavated Round Dounan fort at Dunragit is not convincing as an early medieval site *(contra* Reid 1952, 155–7; McCarthy 2004, 127). It is also worth noting that recent excavations over a 7.4 km long strip at Dunragit recovered significant prehistoric remains, but nothing dating from the early medieval period (Arabaolaza *et al.* 2015).

Yet, as the distribution of E Ware illustrates (Fig. 4.2), merchants from western Gaul were certainly attracted to south-west Scotland during the sixth and seventh centuries, bypassing regions such as northern Wales and Cumbria entirely (Campbell 1996, 87–8). The assemblages of imported pottery and glass recovered from Whithorn and the Mote of Mark are amongst the largest in Britain and Ireland and indicate that a wealth of goods was imported into Galloway directly, and presumably exchanged for valuable exports in return, over the sixth and seventh centuries. The Trusty's Hill E Ware sherd from the 2012 excavations may be just the earliest indicator of a comparable assemblage at this site. It is doubtful that the exchanges that brought this material could take place across the Galloway coast without the presence of a strong, stable, kingdom. Indeed, the overall artefact corpus from Trusty's Hill, inextricably links this centre of production with an apparent and widespread redistributive system in south-west Scotland that was used to consolidate socio-political relations and maintain regional power. There are no other comparable areas in the Solway region that can rival this archaeological evidence suggestive of a powerful early medieval kingdom. And within south-west Scotland, only at Trusty's Hill is there evidence of royal inauguration rites comparable with other contemporary royal sites elsewhere in Scotland. It is therefore probable that Trusty's Hill was the chief seat of this kingdom, lying at the apex of a distribution pattern of fortified secular settlements and ecclesiastical sites across central Galloway. This may well have extended north into Ayrshire given the comparable assemblages recovered from sites like Buiston Crannog and Castlehill Dalry (Crone 2000, 158–9; Smith 1919, 126–9) and the analogous morphology in fortified sites like Kildoon (RCAHMS 1953). The influence of the royal household at Trusty's Hill might also have extended east into Dumfriesshire, and even beyond into Cumbria and upper Tweeddale, but its *core* appears to be Galloway. The

complex hierarchical settlement pattern and abundance of material wealth from the sixth to the seventh centuries in central Galloway is not only unmatched anywhere else in the archaeological record of south-west Scotland and north-west England, where Rheged is thought to lie, but is unmatched in the archaeological record from this specific period in the rest of Scotland and northern England (Fig. 7.6).

The sudden demise of Trusty's Hill and the Mote of Mark also demonstrate that there was a violent and protracted effort to arrest the secular power of the region in the first half of the seventh century, precisely when historical sources show Northumbria in the ascendant, the unification of the Northumbrian and Rheged royal houses, and the beginning of Anglian hegemony in south-west Scotland. Indeed, the rapid spread of later seventh and early eighth century Anglian place-names, and the expansion of Northumbrian religious establishments and sculpture through the region over this period, suggests that the destruction of Rheged required a whole scale cultural transformation. The archaeological evidence from Galloway thus corroborates the historical evidence for a kingdom that was pre-eminent in northern Britain in the decades around AD 600 but which faded into obscurity through the course of the seventh century. It seems not unreasonable to conclude that this archaeological kingdom without an historical record, and the elusive kingdom of Rheged, a historical kingdom without an archaeological record, were in fact one and the same.

Chapter 8

Conclusions

At some point in the sixth century AD, a household laid claim to Trusty's Hill; the site of an earlier Iron Age settlement. In the decades around AD 600, the summit of the hill was fortified with a timber-laced, stone-faced, rampart possibly topped with a timber parapet. Around the same time supplementary defences and enclosures were added to its lower-lying slopes transforming Trusty's Hill into a nucleated fort (Fig. 8.1). Anyone approaching the site from along the southern flank of the hill will have passed the lower enclosures, where some of the household's cattle wealth was perhaps displayed, before reaching the summit's entranceway flanked on its two sides by a rock-cut basin and an outcrop on which two powerful symbols, resembling those from Pictland, were carved. One's eyes and feet were drawn through this symbolic entranceway where, perhaps, rituals of state were occasionally conducted, by horn-works to either side. On entering the summit citadel one may have been greeted with the sight of the king's hall at the highest part of the hill on the west side, and the workshop of his master smith occupying a slightly lower area on the eastern side. The layout of this fort was complex, each element deliberately formed to exhibit the power and status of its household in the same way as other royal forts in Northern Britain.

Yet, the settlement at Trusty Hill nevertheless comprised essentially a single household, where domestic activities were conducted alongside industrial, symbolic and state pursuits. The diet of this early medieval household, with the predominant consumption of cattle over sheep and pigs, and oats and barley rather than wheat, was largely indistinguishable from their Iron Age ancestors. But they were not engaged in agriculture themselves. Instead, this household's wealth relied on the indirect control of farming, animal husbandry and the management of local natural resources – minerals and timber – from an estate probably spanning the wider landscape of the Fleet valley and estuary. Control was maintained by bonding the people of this land and the districts beyond to the royal household, by gifts, promises of protection and the bounties of raiding and warfare. Integral to the politics and economy that governed this fragile system

of loyalty was the most important source of Trusty's Hill's wealth – the direct production and gifting of fine, high status metalwork of iron, leaded bronze, silver and gold. This royal household was also a participant, if not a controlling factor, in a redistributive system of high status imported goods from elsewhere in Britain and as far away as Continental Europe. By restricting access to these imports along with their own products, the royal household at Trusty's Hill may have influenced and consolidated socio-political relations in the wider region over the late sixth and early seventh centuries AD.

It is in this context that the Pictish style symbols at Trusty's Hill should be viewed. There is now no doubt that they are genuine early medieval carvings, likely created by a local Briton, melding innovation with deep seated traditions. They provide significant evidence for the initial cross cultural exchanges that forged the notion of kingship in early medieval Scotland. The location of the symbols at the entranceway to the summit of Trusty's Hill and opposite a rock-cut basin, mirrors the context of the inauguration stone at Dunadd and is therefore integral to understanding these symbols. The nuclear fort of Dunadd was a royal centre for the kings of Dalriada from the sixth or seventh centuries AD, and it contained a material assemblage of high status imported goods and fine metalwork production comparable in quality to Trusty's Hill. Dunadd's Pictish boar, footprint, ogham and rock-cut basin at the entrance to the summit enclosure are best viewed as a set of royal regalia where the rituals of inauguration took place. The only other Pictish carvings located outside Pictland were found near Edinburgh Castle Rock; another site attested by archaeological and historical evidence to be a royal stronghold of the sixth–early seventh centuries. Close comparisons can also now be drawn with the early sixth century royal site at Rhynie in the heart of what was once Pictland. The 2012 excavation at Trusty's Hill sought to reveal the archaeological context for the Pictish style carvings. They succeeded in showing that the site was very likely a royal stronghold and place of inauguration of the local Britons of Galloway.

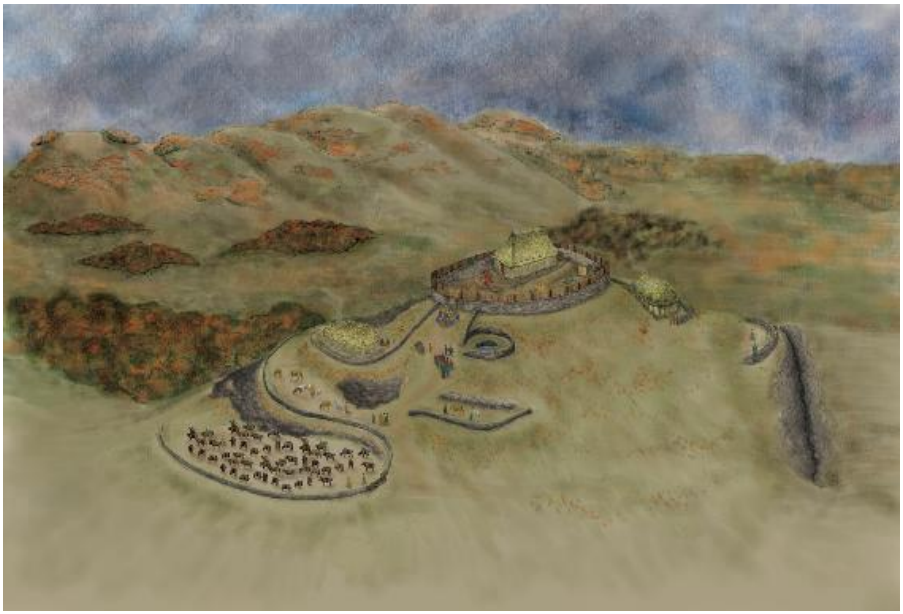

Fig. 8.1. Reconstruction of Trusty's Hill as it may have appeared c. AD 600. © DGNHAS/ GUARD Archaeology Ltd

Indeed, despite larger excavations from a cluster of contemporary secular and ecclesiastical sites such as Whithorn, the Mote of Mark, Hoddom, and Lockerbie, Trusty's Hill is the only site in Dumfries and Galloway where there is evidence of royal inauguration. The royal household at Trusty's Hill was at the apex of a complex hierarchical settlement pattern that may well have extended north into Ayrshire and east into Dumfriesshire and Cumbria. But the core appears to be central Galloway, where the archaeological evidence for high status settlement is unmatched anywhere else in northern Britain during the sixth and early seventh centuries. This archaeological evidence seemingly corroborates the literary and historical evidence for Rheged, a kingdom that was pre-eminent in northern Britain in the later sixth century but which faded into obscurity through the course of the seventh century. The deliberate and spectacular destruction of Trusty's Hill and the Mote of Mark in the seventh century, which can also be surmised for a number of similar but unexcavated sites in central Galloway, is a visceral reminder that the demise of this kingdom in the early seventh century came with sword and flame. It is likely that the nascent kingdom of Northumbria was behind this violent overthrow.

Rheged is probably the most elusive of all the sixth century kingdoms of northern Britain. Nevertheless it contributed a rich source of early medieval poetry by Taliesin. He extolled the martial prowess

of its king, Urien, and his sons, and provided witness to their perceived dominance over the neighbouring kingdoms of the north. This is the same Urien who, according to early medieval Welsh historical records, led an alliance of northern kings against the Angles of Bernicia; an alliance that was broken by Urien's assassination at the instigation of another northern British king. If we accept central Galloway as the heart of Urien's Rheged, we provide a political context to the wealth and complexity of its sixth century secular and ecclesiastical settlement pattern, the attraction of the region to continental merchants, and Galloway's claim as the cradle of Christianity in Scotland. The archaeological record for the establishment of Christianity in southern Scotland suggests that its elite communities were literate and well connected internationally. This could not have occurred without a powerful secular presence providing land and resources. On the basis of this literary, historical and archaeological evidence, we begin to see the tantalising clues to a vibrant and dynamic culture that is entirely consistent with Rheged and the notion that this was, for a short time in the sixth and early seventh centuries, one of the most powerful and influential kingdoms in northern Britain.

The 2012 Galloway Picts Project, a slightly provocative name chosen to reflect the Pictish carvings at Trusty's Hill and engender interest in the investigation, clarified that the carvings at Trusty's Hill are not a relic of the semi-mythical 'Galloway Picts'. This concept, which was never more than a much later medieval monastic moniker for Galloway's people, has long since been debunked. Rather, the archaeological evidence recovered during the Galloway Picts project has instead established a coherent early medieval British context within Galloway for the inscribed Pictish symbols at Trusty's Hill.

There are still questions which future work at Trusty's Hill may one day answer. What types of high status metalwork was being crafted and how? What were its influences, and indeed did this workshop influence others elsewhere? Are there further imports at the site? Was this an import centre? What did the structures on the summit of the hill look like? Is there further evidence for the lives of its household either within the site or within the surrounding area? Is there further evidence that can more closely define the date of the carvings within the context of Trusty's Hill's principal occupation? Finally, if Trusty's Hill and the Mote of Mark show evidence for the arrested development of an early medieval British kingdom, do other sites in the region offer further corroboration?

The 2012 excavations show that Trusty's Hill was likely the royal

seat of Rheged, a kingdom that had central Galloway as its heartland. This was a place of religious, cultural and political innovation whose contribution to culture in northern Britain has perhaps not been given due recognition. Yet the influence of Rheged, with Trusty's Hill at its secular heart, Whithorn as its religious centre, Taliesin its poetic master and Urien its most famous king, has nevertheless rippled through the history and literature of Scotland and beyond.

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